

GET YOUR GEEK ON!

# tech smart®

ISSUE 128 > MAY 2014 > ISSN 1726-3558  
THIS PREMIUM PRODUCT IS FREE  
★ FREEMIUM ★



## SAMSUNG GALAXY S5

Next-level Android?

### ALL THIS INSIDE!

- Pippa
- Sports gear
- Urban e-bikes
- Top 5 remakes
- 3D printed objects
- Windows 8 tablets

## FUTURE CARS

What tech is next?



# Be in tune with your body.



## Enjoy every beat with the Gear Fit\* Heart Rate Sensor.

Take life's ups and downs in your stride with GALAXY S5 and Gear Fit\*. With S-Health and a heart rate sensor, maintaining your fitness goals and a healthy lifestyle has never been so easy. Plus, it's water and dust resistant, so no matter how much of a sweat you work up, it will always keep up with you every step of the way.



© www.samsung.com © 0860 726 7864 \*Gear Fit sold separately.





My Life powered by GALAXY S5 + Gear Fit



Advanced  
Camera



Heart Rate  
Sensor



Ultra Power  
Saving



Dust & Water  
Resistant



Kids Mode



Official smartphone supplier to the Springboks



# Learning a new Craft



I love beer. More specifically, I love craft beer. Although I know I love it a lot, I'm ever grateful to the local brewers who love it even more than me. For them it's not so much a great job as a spectacular passion.

If you haven't followed the brew-olution, make your way to a bottle store with a good selection of beers (Loco-liquors in Blairgowrie is a good stop). Get your hands on the Cape Town-based Devil's Peak King's Blockhouse IPA. Stare at the label and wonder if you've ever seen such cool design on a beer before. Don't think too long since you don't want the beer to become warm (the only thing I hate more than politicians). Pour it, look in amazement at its spectacular golden colour, have a sniff at its amazing aroma (especially dry hopped for that extra aaah), and then, ever so slowly, tip the glass for your first taste. Afterwards you can quietly whisper, "Where were you my whole life?" followed by, "I think I love you."

You do, of course, have a big heart, with enough room for many lovers. That's why you should also try to attend some of the many craft beer festivals held across the country in order to sample as many as possible. The massive Jozi Craft is scheduled for 10 May (jozicraft-beerfest.co.za, more than 100 local beers!), while the Capital Craft Beer Festival is on at the Voortrekker Monument come 14 June.

Fall in love with local beers, and by this I don't mean Castle Light.

Enjoy the issue,

Mike Joubert  
mike@techsmart.co.za.



## Do you want to reach more than 700 businesses in South Africa?

Advertise in



# TechSmart Business

Tel: 0861-777-225 | Email: rajes@smartpublishing.co.za  
www.techsmart.co.za

Published by:



**SMART PUBLISHING**  
FREE MEDIA SPECIALISTS

Tel: 0861-777-225  
2nd Floor, Block C,  
Menlyn Woods Office Park,  
291 Sprite Avenue, Faerie Glen, PTA  
www.smartpublishing.co.za



ABC Certified



TechSmart  
uses BluWave CRM.

## PUBLISHING INFO

Copyright © 2014. All rights reserved. No material, text or photographs may be reproduced, copied or in any other way transmitted without the written consent of the publisher. Opinions expressed are not necessarily those of the publisher or of the editor. We recognise all trademarks and logos as the sole property of their respective owners. TechSmart shall not be liable for any errors or for any actions in reliance thereon. All prices were correct at time of going to print.

### EDITOR PRINT & ONLINE

Mike Joubert: mike@techsmart.co.za

### ADVERTISING

Karien Steenkamp > 083-748-3413;  
karien@smartpublishing.co.za

Xander Pieterse > 079-524-0934  
xander@smartpublishing.co.za

### STAFF WRITERS

Ryan Noik [RN], Robin-Leigh Chetty [RC], Mike Joubert [MJ]

### DESIGNERS

Lizelle Cronjé, Annemart Swanepoel

### CONTRIBUTORS

Stephen Aspelling, Deep Fried Man, Linda Pretorius, Moray Rhoda, Pippa Tshabalala, Mynhardt van Pletsen, Allen Simpson

### COVER PHOTO

Basil Koufos > 082-439-2022

### SMART PUBLISHING

General manager: George Grobler  
george@smartpublishing.co.za



MAKE it  
**POSSIBLE**



**Best Travel Partner  
with WiFi on the go**



Charge other  
devices with USB



Convert LAN to WiFi  
or 3G to LAN



## **HUAWEI E5730**

### **Mobile WiFi and Power Bank**



Create WiFi Hotspot using 3G or LAN connectivity



5200mAh Battery provides Power Bank to charge other devices via USB



Supports HSPA+ up to 42Mbps for faster browsing



WiFi Hotspot enables you to share your connectivity with up to 10 WiFi-enabled devices



Download Huawei Mobile WiFi App from Playstore or iStore

[huaweidevice.co.za](http://huaweidevice.co.za)



[www.facebook.com/huaweiDeviceSouthAfrica](https://www.facebook.com/huaweiDeviceSouthAfrica)



[#whaway](https://twitter.com/HuaweiZA)





Twitter:  
@techsmartmag



Facebook:  
facebook.com/  
techsmartmag



Newsletter:  
[http://techsmart.co.za/  
register](http://techsmart.co.za/register)



## ABOUT THE COVER GIRL

**ALICE, RESIDENT EVIL**

Also known as: Alice Parks

Model: Suskia Strafella from Spotlight Agency

### Quick Facts

Alice's beginnings are largely a mystery; so much so that in our first encounter with Alice in the *Resident Evil* movies, she is introduced as an amnesiac who doesn't remember who she is or how she came to be in Raccoon City.

While Alice formerly served the notorious Umbrella Corporation (ultimately responsible for the T-virus outbreak), she turns against the corporation and joins the resistance movement, becoming her former masters' most formidable foe.

While Alice doesn't escape infection, she does survive it, with the T-virus bonding with her on a cellular level and in fact enhancing her speed and strength, only complementing her already fearsome martial prowess as a former security operative.

Following the outbreak, the Umbrella Corporation pursues Alice relentlessly, determined to capture her and unlock the secrets of why the T-virus transformed her into a superhuman, rather than a zombie or mutant.

This offensive, known as Project Alice, results in Alice being abducted, experimented on, cloned and the corporation attempting to mind-control her.

### Famous Alice Quotes

"My name is Alice. And I remember everything."

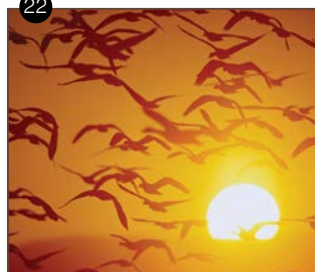
"I became different. Powerful. Unstoppable. As I got stronger, the human race became weaker. I tried

my best to lead what survivors I could find to safety, but we were pursued relentlessly."

"At last, we thought it was over. We thought we had survived the horror. But we were wrong." **ts**



22



## GREAT GEAR

06 BMW Convertible

08 Leaos Carbon e-bike

## REVIEWS

10 Samsung Galaxy S5

12 Preview: HTC One M8

13 Gigabyte S11

14 Dell Venue 8 Pro

14 Acer Iconia W4

16 Olympus Stylus 1

16 Fujifilm X-T1

17 Asus S1 LED Mobile Projector

18 Garmin Vivofit

18 Runtastic Heart Rate Monitor

18 Adidas Climachill

## ROUNDUPS

19 GPS Watches

28 The Future of Education

33 Top 5 3D printed objects

34-35 Top 5 Movie Remakes

## INTERVIEWS

20 Local Masters: Mark Mansfield

## SCIENCE

22 Bird Migrations

23 Smart Answers

26



## CARS

26-27 New Innovations

## ADVERTORIALS

29 Learnfast

## LIFESTYLE

30-31 Autumn Style

32 Grooming: Skin Care

36 Top Movies for May

37 Top Tweets

37 Tech Horoscope

38 The SA comic book scene takes off

39 Know your Anime

40 Poll

## BUSINESS DIRECTORY

40-43 SME Advertisers

## GAMING

45 InFamous Second Son

46 Dark Souls II

## COLUMNS

44 Pippa Tshabalala

Pippa ponders: PS4 or Xbox One?


47 Deep Fried Tech

Deep Fried Man might just be the world's first tech hipster.



30





DATA  
ANALYTICS  
INNOVATE  
GLOBAL  
DISCOVER  
CONNECTED  
MOBILITY  
SUPERIOR  
VALUE

Data sees 69,732 fans.  
Insight sees the troublemaker.

**>>> INNOVATE**  
WITH INFORMATION™

As more and more large sports facilities recognize that a few troublemakers can scare away loyal fans, they are turning to integrated technology from Hitachi Data Systems to keep things safe. By implementing our video security solutions that incorporate facial recognition, sports facilities are able to ensure that the action stays where it belongs – on the field.

See how we help businesses innovate. [www.hds.com/innovate](http://www.hds.com/innovate)



# GREAT GEAR!

## BMW M4 CONVERTIBLE

The new M4 Convertible is the drop-top version of BMW's M4 Coupe, looking equally at ease while taking a leisurely drive along the Cape Peninsula, as it is racing between robots in the Joburg CBD.

Compared to the standard M4 Coupe, the Convertible model is a full 250 kg heavier, weighing in at a pretty hefty 1750 kg. This is pretty considerable, even with BMW integrating weight-saving aluminium (bonnet and front wings) and carbon fibre (propeller shaft and strut) body components.

When it comes to convertibles, the most important part is its roof. The M4's is a three-part metal design that lowers in 20 seconds, while driving at speeds of 13 km/h. BMW also say that this roof is 2 dB quieter than the M3 version.

As far as local availability and pricing goes, BMW is yet to confirm the M4 Coupe's status, but we expect it to make a debut before the end of 2014. It is currently slated for a September release in European markets at an estimated £61 000 (R1.1 million).



BMW has fitted the Convertible with the same engine found in the M3 Saloon and M4 Coupe – a twin-turbocharged 3.0 litre V6 that produces 317 kW and 550 Nm of torque.

The increased weight has an effect on the M4 Convertible's speed, clocking a 0-100 km/h time of 4.6 seconds, which still makes it far quicker than most on the road.

## DAVID BROWN SPEEDBACK GT

Remember the iconic *James Bond* movies helmed by Sean Connery? His thick Scottish accent, his rapport with the fairer sex and most importantly his car? We can't help you with the first two, but as far as a classically styled British sports car goes, the David Brown Speedback GT should sort you out. It only takes a single glance to recognise just how painfully beautiful this machine is, bringing together the retro stylings of yesteryear with modern era handling and performance. The Speedback GT features a host of ornately bespoke touches including LED rear light clusters, and adjustable Xenon headlights, as well as a uniquely designed touch-enabled centre console dashboard display. With pricing detailed upon order, this is certainly a car for a man of means. **ts**







Knowing what I do today, I think that so much in this world would not be possible without our moms. They work 24/7 and still make time for their children, this should always be appreciated. My wife is no exception, she quit her job to focus on raising our children, so for Mother's Day, I'd like to give her the day off and treat her to a luxurious spa experience to show her my appreciation.

However, knowing my wife, she can never be separated from our family for too long – so if she's going to truly relax at the spa, she needs to know she can get in contact with us when she needs to. That's where the new GALAXY S5 comes in.

*"I believe in people because my mother believed in me."*

There's no chance of damage at the spa as the S5 is waterproof and even better, it's secure thanks to the built-in fingerprint scanner. Personally, what I also enjoy is the fact that it downloads files quicker than any rival. With 64GB of storage and a 128GB microSD card, I never ever again have to deal with the annoyance of deleting something I love to make space for something else. I'm a tech-junkie, so partnering with Samsung was a no brainer for me. It's the hottest brand in the world.

I want to share the love this Mother's Day with both my wife and my mother, as should you. Happy Mother's Day to all the moms out there.

## THANK YOU MOM



*This Mother's Day I'd like to dedicate a special song to all the moms out there. It's S'bonga'Abazali by Malaika. The chorus is "...thank you for raising me into the person that I am".*

My mother raised me with three key principles: to always give, take time to help and believe in others. Today I have seen this through – my foundation assists underprivileged children who can't afford to pay for their education and my greatest passion is making a difference in people's lives.

When I dropped out of law school to pursue a career in radio, I knew this was one of the biggest risks I would ever take and I came to Jozi with nothing but a dream, but I did it because my mom stood by me and believed in me. I made it, even though the odds were stacked against me, thanks to her.

There's no manual when it comes to parenting, but she has given me an exemplary example of what good parenting is all about. Today she still plays an essential role in my life and even more so as a grandmother to my three children. We're inseparable. She's taught me the real importance of humility and respect. Now it's my turn to be the best dad that I can be.



*DJ Fresh*

**DJ Fresh**

Samsung Brand Ambassador and radio personality



[www.samsung.com](http://www.samsung.com)



# GREAT GEAR!

## LEAOS CARBON E-BIKE

Living in a bustling city requires a mixture of speed, efficiency and savvy. Italian design firm, Leaos has manufactured a Carbon e-bike to embody all those features and deliver a unique urban commuting experience that's as practical as it is environmentally friendly.

The Leaos e-bike's 22 kg carbon monocoque frame design is fully self-supporting, which means it does not require a conventional suspension system, and comfortably handles the rider's body weight.

Leaos has fitted a digital display into the e-bike's handlebar setup, providing riders with information on speed and electric motor power percentage.

This e-bike features a standard 2.2 kg 11.6 Ah removable battery that powers a NuVinci automatic shift system offering 10 different ratios, with a maximum of 25 km/h. For an additional €265 (R3 900), cyclists can purchase a BMZ-designed battery, producing a top speed of 45 km/h.

The MPF central drive produces 36 volts and tops out at 500 watts, generating 50 nM of torque, capable of propelling you up any steep ascents you may be too tired to tackle yourself.

Leaos has already begun selling this model in Italy and select areas of Europe for a pricey €4 980 (R72 600). Nobody said being environmentally conscience was going to be cheap.



## PEDEGO CITY COMMUTER STEP THROUGH

The City Commuter series is the top of the line urban lifestyle e-bike from American manufacturers, Pedego. Its frame and battery weigh in at a combined 26 kg, with its 48 Volt electric motor generating a maximum output of 500 Watts and requires three hours to charge. This means it can hit speeds of 32 km/h and has a range of roughly 48 kilometres. Currently available locally, the Step Through will set riders back R34 750, which is a little expensive, but the potential savings in the long run makes it an enticing prospect for those doing short to medium distances for their daily work commute. [www.pedego.co.za](http://www.pedego.co.za). **ts**





# TOP DEALS

## LENOVO YOGA 2 PRO-SILVER GREY + MICROSOFT OFFICE 365 HOME PREMIUM [bit.ly/lenovomicrosoft](http://bit.ly/lenovomicrosoft)

Windows 8, Intel Core i7 3<sup>rd</sup>-Gen processor, Display Size 13.3", 8 GB RAM.  
Includes a Microsoft Office 365 Home Premium package.

**R17 299**



## LENOVO 3G TABLET BUNDLE [bit.ly/Lenovodata](http://bit.ly/Lenovodata)

MediaTek 8319 1.2 GHz quad core Processor, Android 4.1 Jelly Bean 10.1" HD,  
3G & Wi-Fi, 16 GB eMMC, 1 GB DDR2, 1 GB Data from Vodacom for 12 months valued  
at R1 000, Data bundle Once-off Payment.

**R4 999**



## ASUS NEXUS 7 (3G) TABLET + PHILIPS HEADPHONES [bit.ly/nexusTS](http://bit.ly/nexusTS)

Android operating system, Display size 7", 32 GB Harddrive, 3G and Wi-Fi.  
Includes a Philips headphone set.

**R2 599**



## TOSHIBA SATELLITE U920T-F0040 [bit.ly/toshibasattellite](http://bit.ly/toshibasattellite)

U920T-F0040 Toshiba UltraBook Convertible,  
Intel Core i5-3337U, 4 GB RAM, Display size 12.1".

**R8 699**



**FREE  
DELIVERY  
IN SA!**

Go to [www.techsmart.co.za/shop](http://www.techsmart.co.za/shop) for all the specials

Free delivery in SA. E & OE. Stock is limited.



# SAMSUNG GALAXY S5

**The Galaxy S5 is Samsung's new 2014 flagship, packing more of the same Android-powered quality we've come to expect. But does it have enough enhancements to warrant upgrading?**

For the most part Samsung is sticking to its winning formula, since the S5 features miniscule adjustments to its dimensions. Now with a slightly larger 5.1" display, the S5 is also 15 g heavier than last year's model, weighing in at 145 g.

These minor modifications are echoed throughout the S5, with one of the major changes being its newly integrated water and dust-proof design, aiming for a level of durability similar to that Sony's Xperia Z smartphones. Samsung is sticking with the plastic design though, this time with a slightly more dimpled plastic back cover. Although offering a pleasing change, the new back cover does not offer an increased level of handling.

## Powerhouse Performer

From the first moment you boot up the S5, you're immediately aware that you have a supremely powerful smartphone at your fingertips. Powering our review unit, is a Qualcomm Snapdragon 801 quad-core chipset which clocks at an impressive 2.5 GHz, 2 GB of RAM and 16 GB of internal memory. This particular chipset is used with the LTE version, with a second 3G enabled S5 coming, incorporating a 2.1 GHz Exynos 5422 processor and 32 GB worth of internal storage. As far as performance and processing capability go, the S5 has few equals, scoring exceptionally well across the board on all the benchmark tests we threw at it.

**THE S5 IS A VERSATILE AND SOLID WORKHORSE CAPABLE OF COPING WITH DEMANDING WORK AND PLAY.**

As with the previous S4 model, the Galaxy S5 has a similarly crisp and vivid display (1080x1920) that brings Android Kit-Kat (4.4.2) to life. But it is worthwhile to note that the S5 has a lower pixel density of 432 ppi, as opposed to the S4's 441 ppi. The lessened pixel density of the Galaxy S5 is unnoticeable, and the display is still one of the best on a smartphone we've seen. Unfortunately, the 2 mm bezel around the screen makes it prone to touches as a result of misplaced fingers or thumbs on the edge of the screen.



## Sharp Focus

With regard to camera setup, Samsung has incorporated a 16 megapixel primary camera at the rear, capable of capturing images up to 5312x2988 pixels. One can also record 2160p content, with its secondary 2 megapixel front-facing camera capturing 1080p video. Its camera is one of the areas in which the Galaxy S5 truly excels, as the enhanced autofocus feature allows one to capture images a lot faster than the S4 could. This should translate to a definite tick in the pros column for the Instagram-obsessed set.

## Overall Verdict

The Galaxy S5 has still fallen victim to Samsung's insatiable love of plastic, something that will continue to hamper its appeal when pitted against the better build quality of the HTC One (M8) and iPhone 5S. But, there is no denying that the Galaxy S5 is a well-specced flagship that any smartphone owner would be proud to carry. Its impressive performance and similarly commanding chipset make it a versatile and solid workhorse capable of coping with demanding work and play.

At R9000 and R11 000 for the 2.1 GHz (3G) 32 GB and 2.5 GHz (LTE) 16 GB versions respectively, the Galaxy S5 is only appealing for those S3 users looking to make the step up to Samsung's latest flagship. But if you currently tout the S4 around the office, you may want to hold out until a new model appears in a year's time. [RC] **ts**

## QUICK SPECS

**Processor**  
LTE – 2.5 GHz Quad-core Qualcomm Snapdragon 801  
3G – 2.1 GHz Octo-core Samsung Exynos 5422

**RAM**  
2 GB

**Screen Size**  
5.1" Full HD Super AMOLED

**Storage**  
16 GB Internal storage (LTE), microSD slot for up to 128 GB



# GIGABYTE™

Power in Your Hands  
10.2" Laptop S1182



**S1082**

- Dual-core Processor
- 500GB HDD/ 64GB SSD Storage Space
- Full PC Connectivity with I/O Ports
- Fantastic Capacitive Multi-touch Screen



Stand, Smart, Succeed  
11.6" Tablet S11M / S1185



**S11M**

Padbook™

- 4th Generation Intel® Core™ Processor
- Full HD IPS Display with Wide Viewing Angle
- Fixed Standard D-sub & HDMI Ports
- Mouse Like Design for PC Mode Like Usage



**S1185** Ultrabook™ Padbook™

- 3rd Generation Intel® Core™ Processor
- Full HD IPS Display with Wide Viewing Angle
- Fixed Standard D-sub & HDMI Ports
- Mouse Like Design for PC Mode Like Usage



Where to Buy



<http://bit.ly/gigabyte-wherebuy>

ectron

National Sales Call Centre : 0860 582 835

MADE in TAIWAN

The entire materials provided herein are for reference only. GIGABYTE reserves the right to modify or revise the content at anytime without prior notice.

[www.gigabyte.com](http://www.gigabyte.com)

## COMPUTEX TAIPEI

### COMPUTEX TAIPEI strengthens its lead in ICT

Concepts, products and trends are connected here to push the future of smart tech, touch applications, wearable tech, mobile computing and cloud tech & services.

The well-known joins at COMPUTEX TAIPEI to annually reshape the future of ICT! See 1,700-plus top ICT exhibitors showcasing over four dazzling venues. Picking up the pace are several new feature areas on "Touch Applications & Display Products" and "Smart Tech & Applications".

This year's mix of companies are enriched by first time Taiwan exhibitors like MediaTek who joins major players Acer, ASUS, Delta and Transcend along with AMD, FORD, Intel, Microsoft and Supermicro.

The ICT sector converges at the Summit Forum to hear Simon Segars, CEO of ARM, M.K. Tsai, CEO of MediaTek and Stan Shih, founder & President of Acer who share insiders on convergence of social interaction, mobility, cloud, and the

**2014  
JUNE 3-7**

*Shaping the Future!*



shape of things to come. The CPX Forums open rare moments to connect with top executives from Amazon Web Service, Cisco, Broadcom, IDC, NXP, STMicroelectronics, and Salesforce as they zoom in on hot topics like big data and internet of things.

For the first time international visitors get FREE 4-day metro passes embedded into their visitor badges. These badges provide FREE unlimited rides on the Taipei Metro from June 3<sup>rd</sup> to 6<sup>th</sup>. This free exclusive lets buyers take in the sites and easily zip between the halls.

**Deadline for pre-registration is May 28<sup>th</sup>.**

**After that date, registration can only be made at on-site counters. For more details on COMPUTEX TAIPEI or to pre-register on the official website:**

**[www.ComputexTaipei.com.tw](http://www.ComputexTaipei.com.tw)**





# Hands on with new HTC ONE (M8): First impressions

**TechSmart got some exclusive facetime with HTC's new flagship, the One (M8) at its launch event in Dubai. This new device is certainly highly spec'd, but will it be highly prized? We find out.**

The first and most notable difference between the One iterations is that this new model is fitted with a 5" full HD display (previous HTC One is 4.7", Samsung S5 is 5.1"). Measuring 70.6 mm wide, the One (M8) is just broad enough for single hand use, nestling neatly in the palm. Any bigger and it may have become a little unwieldy, so kudos to HTC on that front.

**ALONG WITH A NEWLY DESIGNED EXTERIOR, HTC HAS GIVEN THE INTERNAL ELEMENTS OF THIS PHONE A REVAMP AS WELL.**

On the design side, HTC has not simply upscaled the previous One's design to larger dimensions, instead the company has made an effort to exaggerate the curved edges of this new device in order to make it feel better in hand. And we have to say that it certainly does, as the arched back fits more naturally with the shape of the hand, making use of your thumbs while swiping and typing far easier. The metal casing however is a bit too smooth to the touch, and we believe that might make it a little less tactile than desired.

## Processor overhaul

Along with a newly designed exterior, HTC has given the internal elements of this phone a revamp as well, with Qualcomm's Snapdragon 801 quad-core processor (2.4 GHz) powering the unit. This is supported by the newly designed Sense 6 user interface, which was extremely fluid and responsive, although a full battery of benchmark testing would be required to determine just how well the One M8's chipset measures up.

Imaging is the One (M8)'s standout features, with a dual-rear UltraPixel camera setup. Users may be turned off by the four megapixel camera (2688x1520), but you've got to keep in mind that an UltraPixel is 1.4 times sharper than its megapixel counterpart, according to HTC at least. This truly shows, since image quality is superb, even in low light conditions, picking up amazing amounts of clarity and detail. With regards to the dual camera setup, the larger main camera captures images, with the smaller one adding depth. This depth aspect is used in photo editing and allow you to change the focus of an image to either foreground or background objects.

## Case closed

As far as accessories go, HTC's Dot View Case may just be the best smartphone cover ever. The case itself looks fairly innocuous, but once utilised is truly engaging. This is down to the fact that its functionality is so simple and cleanly executed. For example, double-tapping the cover will bring up information such as time, weather, alarms and calendar events. It also allows users to answer or reject calls without having to open up the case. It's strange to think that this was not designed sooner.

## Top tier contender

At time of going to print the HTC is still to be released in SA, with pricing for the 16 GB and 32 GB variants of the device yet to be officially confirmed. But we were told to expect the One (M8) to retail for around \$750 (R8 000) for the 16 GB version. [RC] **ts**



# GIGABYTE

## S11M



**Gigabyte's notebooks have time and again won us over and proven to be lustworthy machines. Can its Windows 8 tablet hybrid, the S11M, carry on this fine tradition?**

The machine starts off by impressing, offering build quality that felt every inch a Gigabyte product, which is to say, solid, durable, and premium quality.

Despite its solidity, the 11.6" tablet wasn't overly heavy in the hand, although you would more than likely find yourself using two hands when holding it for long stretches. It also offers a couple of nifty features that lend it to being held and operated predominantly in landscape orientation by both hands. For example, on the left hand side of the tablet when held horizontally, you can find two buttons that function as left and right mouse, while on the right hand side of the tablet, there is a rather nice little trackpoint nib for guiding your cursor.

### Get a grip

Naturally, holding the tablet in portrait mode all but obviates their use practically. However, the sharp and beautiful touchscreen, which boasts a 1920x1080 resolution is very responsive, and we found ourselves fluidly alternating between using the tracking nib in landscape orientation to navigate to PDFs and then switching to portrait mode to read them.

We have no complaints about performance on the tablet, which is very good across the board, thanks in no small part to an Intel Pentium 3555U processor (1.7 GHz) and 4 GB of memory. Also onboard are a 64 GB SSD, microSD card slot, USB 3.0, USB 2.0 and HDMI ports. However, there are some issues that the tablet's size and design

present. Firstly, in order to type using both thumbs, you would likely switch to portrait mode as the 11.6" size makes typing with both hands difficult, unless you have hands the size of Dwayne Johnson's bigger brother.

### Horns of a dilemma

The problem is that the touch keys in portrait orientation are very narrow and close together, making accurate fast typing almost as challenging as trying to win a wrestling match with The Rock. However, you can employ the included keyboard cover/dock instead and kick out the tablet's backstand for support. The rub is that you will need to find a solid surface (like a table or desk), since using the S11 notebook style on your lap isn't feasible.

**WE HAVE NO COMPLAINTS ABOUT PERFORMANCE ON THE TABLET, WHICH IS VERY GOOD ACROSS THE BOARD.**

On the plus side, the attachable chiclet keyboard is very nice, with satisfyingly deep keypresses for a cover. Additionally, this keyboard snaps to the tablet section willingly and firmly. We do wish though that the magnetic strength of the cover when closed was a little stronger and not so easily shifted off the screen.

That said, the S11 is still a strong contender as a Windows 8.1 tablet, particularly if you just intend doing a little bit of content creation and primarily content consumption. RRP: R12 400. [RN] **ts**

## QUICK SPECS

**Processor**  
Intel Pentium 3555U processor (1.7 GHz)

**Memory**  
4 GB

**Screen size and resolution**  
11.6", 1920x1080

**Storage**  
64 GB SSD



# DELL Venue 8 Pro

If the Venue 8 Pro is any indication of portable Windows 8 tablets to come, then the future looks bright for this tablet sector.

Admittedly, we haven't been the biggest fans of Windows 8 tablets in the past, for a variety of reasons. However, Dell's Venue 8 Pro may just be the head of the vanguard to change our mind on Windows 8 tablets altogether.

## THOSE SEEKING A GREAT WINDOWS 8 TABLET SHOULD SERIOUSLY CONSIDER THE VENUE 8.

Firstly, the 8" tablet is just right size-wise; sitting neatly in one's hand and proving both portable and light enough to hold one handed for extended periods, a boon when using it to consume media, read documents or browse the web. That extra inch on the 1280x800 display, when compared with a 7" tablet, also makes the tablet feel less cramped when doing productivity related work.

### Show off

Furthermore, Dell's tablet conjures good memories of the 2012 Nexus 7, similarly boasting a lovely stippled background, and complementing this with a reassuringly solid build. In terms of specs, we found that its Intel Atom processor (Z3740D) and 2 GB of memory performed well enough to provide a smooth performance across the board, and the solid 64 GB of storage is further complemented by a microSD card slot (up to 128 GB).



Additionally, for those who consider Microsoft Office to be their productivity bread and butter, it comes with Office pre-installed, although you do need an Office 365 subscription to use it to its full extent. Working on a document for example was much smoother and easier than on an 11.6" tablet, since typing with both thumbs in both portrait and landscape orientation was not just feasible, but fast and effortless.

Worth mentioning is that this is a full Windows 8.1 experience, albeit on an 8" screen, and actually Dell's offering works a lot better than on its notebook counterparts. The only con is that the back of the tablet gets a little warm after extended use; thankfully not scaldingly so. Also worth noting is that the tablet does not come with a stylus. All in all, it's a rather impressive 8" tablet, those seeking a great Windows 8 device should seriously consider the Venue 8 Pro. RRP: R5 000. [RN] **ts**

# ACER Iconia W4

Windows 8.1 might not have set the world alight on notebooks, but on an 8" tablet it seems to sparkle.

Acer's Iconia A1 Android-based tablet showed that the Taiwanese company also has something to say in the 8" tablet space. It didn't cost an arm and a leg, plus it did the job without hassles. The new W4 is doing the same for 8" Windows-based tablets. We will be the first to admit that we had a pretty rotten time with Windows 8 on notebooks. For an interface so dependent on the desktop view, having all the charm bars and apps interfere with the working experience is a shortcut to frustration. That's why we were surprised to find that Windows 8.1 on the tablet works so well.

### Touch it

It needs to be touched to be believed, and this is where the 8" 1280x800 LED screen comes in. Although it's not full HD, the screen looks crisp and displayed images and video beautifully, although we are not convinced when it comes to the equal distribution of light across the screen. It is responsive to all the little touch nuances related to Windows 8.1 including swipes for the charm bar, recent apps and split screens.

## THAT'S WHY WE WERE SURPRISED TO FIND THAT WINDOWS 8.1 ON THE TABLET WORKS SO WELL.

Acer also includes a physical Windows button conveniently placed at the bottom of the screen in portrait mode. This can be used to

go back to your Metro menu to find your app list. Talking of which, although Windows doesn't have the app numbers that Apple or Android can boast, it does contain the most important ones. More importantly, it has the Windows desktop, which means that you can install software used on notebooks and that does not run on Android or iOS.

### The bad touch

The W4 is not without critique though. Compared to the Dell Venue 8 Pro it is both thicker, heavier and feels more plasticity (especially on the volume rocker). There's also no special texture on its back which makes us believe that it's better to carry this one around in a protective cover in case it slips out of hand. On the performance side we could not complain, with the W4 supported by an Intel Atom Z3740 processor (1.33 GHz) and a good chunk of 2 GB RAM, coming also with micro HDMI and a microSD card ports. Price and availability are still to be announced. [MJ] **ts**

*\*W4 was provided as seeding unit.*







### LAPTOP CAR CHARGERS

For all Laptop types

**FROM  
R390**



### LAPTOP CHARGERS

**FROM  
R280**

### TOSHIBA SATELLITE C50-A0413

Intel N2820 | 4GB Ram | 750GB HDD  
15.6" Display | DVD-RW | WIFI  
1 Year Carry-In  
Warranty

**R4995**  
While Stock Lasts



### 256GB SSD (SOLID STATE DRIVE) UPGRADE

Increase your current PC or Laptop  
performance up to 3 times

**R1995**

Move all data, programs and settings @ R380 incl VAT



### DEEP COOL N600

Laptop Cooler

**R245**



### LAPTOP BATTERIES

For all Laptops

**FROM  
R695**

### 16 CHANNEL CCTV KIT H.264 + 16 WATERPROOF DAY/ NIGHT CAMERAS

1 x DVR H.264 + 1TB HDD (Remote view supported)  
16 x 700TVL Day/Night IR Cameras (3.6mm Sony Lens)  
32 x BNC Connectors  
16 x DC Male Power Connectors  
1 x 16A Power Supply  
2 x 100m RG59 Cable Rolls

**R7950**



### UPGRADE OPTION

- 18 Channel Power Supply with Fusebox 20A (add R800.00)
- 100M RG59 ROLL (add R490.00)
- 2TB HDD Upgrade (add R750.00)
- 850TVL Camera (add R250.00 per camera)
- 18.5" LED Live View Monitor + 2m HDMI Cable (add R1490.00)
- LED Monitor Wall Mount Bracket 24" (add R450.00)
- 1200VA UPS - 30min Power Failure Recording (add R1500.00)
- BNC Crimping Tool (add R350.00)

## RECEIVE OUR PRODUCT PRICELIST INSTANTLY!

**SMS laptop (space) your email address to 41876** R2 per sms **AND WE WILL CALL YOU BACK**



## SPECIALISTS IN LAPTOP REPAIRS

Printer Repairs | Laptop Repairs | Upgrades | Projector Repairs | LCD Screen Repairs | Onsite IT Support

**ALL REPAIRS DONE IN OUR WORKSHOP**

**012-663-9190**

HP, Acer, Compaq, IBM, Dell, Fujitsu Siemens, Mecor, Sony, Asus, Toshiba, Packard Bell, LG, Lenovo, Proline, Gigabyte, Apple Mac, BenQ, Sahara, and many more...

Terms and Conditions apply. Stocks are limited. E&OE. Prices may change without notice due to Rand Dollar fluctuations. All prices quoted are cash or EFT only and Incl VAT.

# OLYMPUS

## Stylus 1

**For photographers, there is such a thing as love at first sight, particularly when it comes to that moment when you first pick up a camera. Case in point: Olympus' Stylus 1.**

It's not hard to tell when a camera has been built well and designed with care, in fact, the litmus test for each is a reluctance to set the camera down. Suffice to say, the 12.7 megapixel Stylus 1 compact passes this test with flying colours. The reason has much to do with the camera's extremely solid build, with it boasting just enough heft to be reassuring, without crossing the line into being unwieldy.

### Give me a hand

Then there is the issue of ergonomic controls, which the Stylus 1 simply nails, taking some design cues from the excellent Olympus E-M1. Firstly, a main control dial encircling the 10.7x zoom lens (28-300mm equivalent) offers a convenient means of changing your aperture (a fast and constant f2.8 throughout the whole of its zoom range – incredible) or shutter speed (60 seconds up to 1/1200th). Additionally, two separate controls, one next to the lens and the other at the shutter, enable you to adjust your zoom according to how you prefer to hold and control these essential settings.



**THEN THERE IS THE ISSUE OF ERGONOMIC CONTROLS, WHICH THE STYLUS 1 SIMPLY NAILS.**

Moreover, the camera's 3" 1040k-dot LCD screen is outstanding, more than holding its own in direct lighting and as clear and sharp as it is bright. However, if you instead prefer relying on the electronic viewfinder, then those qualities carry through there as well.

### And yet, a couple of cons too

If there is one issue we have with Olympus in general, it is their menu structure, which is more fragmented than and not quite as intuitive as some other manufacturers and takes a little getting used to.

Ultimately though, the Stylus 1's strengths surpassed and superseded its weaknesses. At the end of the day, it was not difficult to envision it as being the (near) perfect travel camera, and we were sorry to lose it from our grip and let it go through its departure gate. It comes with a pricey RRP of R10 000. [RN] **ts**



# FUJIFILM

## X-T1

**More than ever before, photographers are spoilt for choice when it comes to cameras. The Fujifilm X-T1 is just another example of the quality that is currently available.**

your shutter speed just beside it. On the left the ISO dial sits comfortably, with both the ISO and speed protected by a lock release to prevent accidental adjusting. Where is the Aperture you might ask? Right on the lens, where it belongs.

### Viewfinder

If ever the case was made for electronic viewfinders (EVF), the X-T1's is it. It's big, it's bright and if you were wondering about lag, stress no more. We've been big proponents of EVF for two reasons – in most cases you can see adjustments made to exposure and see exactly how your pic comes out. Secondly, you can also see what you've captured without having to remove your eye from the EVF. This is not to say that all EVFs are created equal – the X-T1's 0.77x magnification is superb, while the 2.3 million-dot OLED display is dense enough to not make you think you're missing out.

### And the bad?

Battery life on the X-T1 could have been a whole lot better, while it's sometimes slow to get out of sleep mode. Videographers will also bemoan movie quality that cannot compete against what some DSLRs can offer. That's not to say that the X-T1 is not one of this year's hottest cameras. If you're aiming to go mirrorless, you're going to have a tough time deciding between Fujifilm's offering, and the Olympus E-M1. RRP: R20 000 with 18-55mm kit lens. [MJ] **ts**

Fujifilm has for the past few years impressed us with cameras such as the X-E1 and X100S. Its latest, the X-T1, feels like a culmination of lessons learned. It features the impressive 16 megapixel X-Trans CMOS Sensor II, excellent image quality, and, just as important, a weather-sealed body that can work some magic of its own.

### Dials everywhere

The less we have to delve into the camera's menu structure the happier we are – rather getting on with photographing. Good then that the X-T1 is as close as an old film camera as you will get, with dials in all the right places. On top you have your exposure compensation on the right, intuitively placed just next to your thumb, with





# ASUS S1 Mobile LED Projector

REVIEW

Projectors are far from the sexiest pieces of office technology. But Asus believes that doesn't have to be the case, as the S1 Mobile LED projector merges functionality and portability in one beautifully polished package.



There's no getting around the fact that the S1 looks fantastic. The brushed aluminium finish and clean lines seem to draw inspiration from the similarly striking Asus Zenbook ultrabook. Apart from its impressive design, one of the most defining aspects is its diminutive dimensions, at 110.5 mm x 102 mm and standing only 30.7 mm high. This is made even more impressive, when you consider the quality of image it generates. Asus has opted for a LED-based light source, producing a maximum of 200 lumens, with a resolution of 854x480.

## THE S1'S LIGHTWEIGHT CONSTRUCTION AND QUICK SETUP MAKE IT A GREAT PORTABLE PROJECTOR.

Another impressive feature is its 6000 mAh internal battery, which affords the LED lamp a lifespan of 30 000 hours, translating to ten years of potential usage. The S1 also weighs in at 342 g, making it ideally suited for road warriors.

## Crowd pleaser

According to Asus, the S1 is one of the best in-class short throw projectors currently available, and we'd tend to agree, as it provides a 41" display from one metre. The S1 has also been fitted with a number of ports, but the main connection is a HDMI/MHL port which is used to connect notebook or smartphone devices.

Aspects to keep in mind however are, that the S1 features no keystone correction capability, as well as being limited to connections with mini-USB sporting devices. These are not deal breakers, but would have been worthwhile considerations. One welcome inclusion is the USB output connection, which can be used to charge other devices even when the projector is powered down. The USB port also supports PDF file viewing from one's storage device, but it does not extend to Excel or Word documents.

## Final say

All in all, the S1's lightweight construction and quick setup make it a great portable projector, offering strong visuals with more than enough clarity to make viewing a pleasure. The added benefit of a ten year life span makes it an even more attractive prospect at R4 000. [RC] **ts**



3DSYSTEMS™

Take your world from physical to digital with 3D scanning

CAD HOUSE  
3D Printers • 3D Scanners • 3D Design

## Cube® 3 Personal 3D Printing



The third generation Cube® 3D printer offers a new, compact design, dual color printing, a choice of 23 print colors in ABS and PLA plastics, touch-screen controls, printing direct from your mobile device and print speeds up to 2 times faster than other printers.

## Design Lab

EXPLORE 3D DESIGN WITH A RANGE OF EASY TO LEARN SOFTWARE

Try your hand at organic modeling for jewelry, art and more with Cubify Sculpt, or have a go at parametric CAD with beginners Cubify Invent. Add complexity to your skills with Cubify Design.



Address: Unit 21, Cambridge Park 5 Bauhinia Street, Highveld Technopark, Centurion Tel: +27 (0)12-654-0559 Cell: +27 (0)82-561-5051 Email: info@3d-printer.co.za

Web: [shop.3d-printer.co.za](http://shop.3d-printer.co.za)



## GARMIN Vivofit

**Garmin's first foray into fitness bands has learned from its competitors' errors, resulting in one of the best active lifestyle trackers to date.**

### Pinpoint accuracy

Many of these functions exist among common fitness bands, but what makes the Vivofit different is its level of accuracy. This really impressed us, since the Vivofit is able to accurately detect the difference between purposeful and superficial movement. This is something that other popular fitness bands, such as the Nike Fuelband, fail to do. The Vivofit also boasts a built-in heart rate syncing feature, which will however require the purchase of a Garmin heart rate monitor strap which retails separately for R730.

One area that we have to fault the Garmin Vivofit, is the quality of the LCD display (25.5 mm x 10 mm), with information not appearing as bright as needed. This is exacerbated when viewing in bright light conditions.

### Solid performer

With the vast number of fitness bands currently available on the market, the Garmin Vivofit stands head and shoulders above the majority, as it's able to offer a greater deal of accuracy when compared to competitors. For that reason, the R1 400 that it will cost you is certainly money well spent. [RC] **ts**

**W**earables have literally flooded the technology industry recently. Now Garmin is entering the wearable fray with its fitness band offering, the Vivofit, aiming to take on an already highly saturated market.

### Incognito stylings

The Vivofit is by no means the most radically designed fitness bands we've come across, with Garmin opting for a more discreet approach, favouring substance over flair and keeping things as simple as possible. Setting up your Vivofit is relatively easy, with a ANT USB drive used to pair your fitness band to your PC using Garmin's Connect application. This allows the Vivofit to sync all information for personal reference, including an infographic of your daily and monthly measurements and goals.

**THE VIVOFIT IS ABLE TO OFFER A GREATER DEAL OF ACCURACY WHEN COMPARED TO COMPETITORS.**

Among the Vivofit's various information modes are a pedometer (step counter), daily step goal, distance covered (in kilometres), calories burned, time and sleep monitor. The sleep monitor is user activated and measures how long one sleeps, as well as the amount of restless movement made.

## ADIDAS Climachill

**A**didas put a lot of effort into creating their latest range of Climachill shirts. Made to keep you at your optimum body temperature while training, the shirts incorporate material using titanium, and 3D aluminium cooling spheres situated at the back of your neck. While running with Climachill we can say that these little spheres are cold to the touch for a while, up until your body temperature starts to rise. Fact of the matter is that you are going to get hot while training and we're unsure if a T-shirt is going to shave seconds of your personal best (more than, say, training harder). But, we can say that Adidas' Climachill shirt managed to keep moisture at bay – it was far drier after 10 km of running than what we're used to. For this reason alone we won't take on a race without it again. Do note that the shirt is slim-fit, so you might need a larger size than normal. R500. [MJ] **ts**



## RUNTASTIC Heart Rate Monitor

**I**f you make use of the Runtastic app for tracking your runs or other activities, the Runtastic Heart Rate Monitor is a good add-on. It works via Bluetooth (dongle-free) and there's not much setup required, since it connects automatically once you open the app (sometimes ours struggled, but we would place the blame on the phone rather than on the monitor). Heart Rate zone monitoring can be an effective way to help increase your anaerobic threshold, cardiovascular capacity or fat burning rate, and voice feedback provided from the app tells you in which zone you are currently in. Afterwards Runtastic provides a chart that tracks your heart rate to your pace/speed/elevation, and shows the percentages of each heart rate zone of your workout. R1 200 from Dion Wired or Totalsports. [MJ] **ts**







# WATCH MY GPS

## Activity Watch Roundup

The latest precious real estate is your wrist, with more and more companies racing for their device to secure a spot on your arm. While these GPS watches might not be smart per se, it would be stupid not to include them in your training regime.

### 1. Garmin Fenix 2

The multi-sport watch to beat may just be the new Fenix 2 from Garmin, which is exceptionally full featured. It caters for a variety of activities including running, climbing, riding, hiking, paddling, skiing and swimming, with detailed information for each activity. For example, users can specify the length of their swimming pool before beginning a workout, while Ski-Board mode puts speed, distance and vertical drop data front and centre. What's more, it tracks your distance, pace and heart rate, calculates recovery time and maximum oxygen consumption (VO2 max) estimate when used with a heart rate monitor. As if that wasn't enough, it then brings GPS positioning, 3-axis compass with altimeter and barometer to the mix as well. R5 800 for the watch, R6 500 with heart rate monitor.

### 2. TomTom Multi-Sport Cardio

TomTom's latest is its second foray (third if you include the Nike+ collaboration) into the world of sport tracking. The big deal on this watch? No more chest-straps needed to monitor your heart-rate – the Multi-Sport Cardio does it via a built-in sensor that checks blood-flow in your wrist. With five heart-rate based training zones, the watch can help with endurance, fat-burning and speed training. The Multi-Sport Cardio further displays your speed, distance and calories burned. Cycling, and indoor and outdoor running are catered for, while swimmers can view their strokes, lengths, distance and speed while training. It's debuting Stateside for a rather reasonable \$250 (R2 500).

### 3. Polar V800

Billed as a training companion, the V800 not only offers integrated GPS, it also enables you to see your heart rate (with strap) when swimming as well as when training on land. Catering particularly to triathletes, the device offers up customisable profiles for the expected – running, cycling and swimming, along with skiing. Really impressing us though is the rechargeable device's stated battery life – fourteen hours of training time, 50 hours in low power GPS mode, or 30 days in time mode with 24/7 activity monitoring. Available from this month for R6 500.

### 4. Adidas miCoach Smart Run

It should come as little surprise to find an offering from Adidas on our list, but where the miCoach Smart Run differentiates itself from the competition, is that it focuses in on one activity, namely running. To start with, the watch boasts a strap-free heart-rate sensor, a boon for those who find the usual chest band distracting, and of course GPS-based speed, distance, cadence and route information. The Smart Run further offers customisable training data screens and lives up to its name with real-time cardio coaching. Also onboard is 4 GB of storage and a music player, although the wireless headset to this end is an optional extra. RRP: R5 000. [RN] **ts**



## Local Photo Masters:

### Mark Mansfield

Photographing out of an airplane travelling between 100-240 knots (180-444 km/h) with both your seat and door taken out, is not everyone's idea of having fun. For aviation photographer Mark Mansfield, this is practically heaven.

Mansfield is arguably the most well-known name in South African aviation photography. Not just because of his amazing images (his covers for World Airnews and other publications speak for themselves) but also for his eagerness to have a chat and share knowledge. He's one of the few individuals to blend two of his favourite pastimes, photography and flying (he had a pilots licence before his driver's), into a career that takes him across the globe for shoots.

#### TS: How did you become interested in photography?

MM: In order to pay for the furthering of my aviation licence, I went to work in a CNA's photo development lab cleaning the machines. Later I started developing and in order to assist customers better, I decided that I must start taking photos too. I was given an old Praktica camera and taught myself how to shoot. One of the photos I took was of a Cessna, and it was on the counter to show the customers the different sizes for prints. True as goodness the owner of the aircraft comes in one day and says: "That's mine!" It was the first print I ever sold.

#### What gear do you use?

I am a local Canon ambassador and use only Canon gear. For air-to-air work I shoot with the 24-105mm IS L lens attached to Canon's flagship



1Dx body. I love that combination. The 1Dx gives me 12 frames per second shooting RAW, and has brought down my attrition rate quite significantly. You can't go wrong with the 1Dx, mainly due to a combination of speed, focussing and the sheer processing ability.

Usually to prevent changing lenses at airshows, I have two bodies, one with the 24-105mm, and the 7D with a larger lens. For my air-to-air work, I shoot with one body, one lens, with a backup just in case. When doing big jobs you hope your gear doesn't fail you, and Canon's never has.

#### How would one get involved in aviation photography?

In South Africa we are very blessed with a large number of airshows, with big events like the Rand Air Show, SAAF Museum Air Show, and Africa Aerospace and Defence. These are great opportunities to get your foot in the door. Here you can do static shooting (ground-to-ground) and the ground-to-air work to really hone your skills. You can also go to the smaller airstrips and take photos there – Germiston, Grand Central, Wonderboom. But, please, it is not an open invitation to run onto the apron. If you are in a club, bring up the subject of aviation photography and get your club to arrange outings to airports. If they approach airport management, they might be able to assist with photo walk-arounds. I am a Facebook message away and I will gladly help the clubs to get involved.

#### What type of equipment would you recommend to photographers starting to get into aviation photography?

Look at your budget, and consider what you are going to do with the camera. Are you really going to need those extra features? Rather invest more in your glass (lenses).

Ideally you want two lenses. If you are shooting static airplanes on the ground, you want a nice wide angle lens. Kit lenses are often knocked as cheap and not so good, but in many cases, the kit lens would do fine. I have shot many covers with a regular kit lens – just know the lens' limitations and work within that. If you do have the budget a 24-105mm on a full-frame.

For the ground-to-air work, for example at airshows, you want something bigger, in the range of 70-300mm. Also remember that on your APS-C sized sensor you get extra magnification and that helps a lot. Again, if you have the money, try the 100-400mm. [MJ] **ts**

Find more of Mansfield work here:  
 • <http://m-cubed-media.prosite.com/>  
 • [bit.ly/markmans](http://bit.ly/markmans)





# COPIER SPECIAL

## bizhub B36



KONICA MINOLTA

**Rental:** R590 per month  
60 months 0% escalation  
prices excl. VAT

**Service:** 5.6c per copy  
including all spare parts + TONER  
prices excl. VAT

### Technical Specifications

**Volume:** 36 000ppm

**Functions:** Copy, Network Printing, Faxing, Duplexing, Colour Scanning

Whether you're a large corporation or a growing business, the bizhub 36 will help you speed your workflow as you reduce your costs. Designed to integrate with your bizhub multifunction laser printer network, the bizhub 36 will replace costly desktop printers and reduce IT management needs by consolidating administrative functions.

**bizhub** print · copy · scan · fax



For more information contact  
Klaas: (Cell) 079 034 5973  
(Tel) 012 809 1826  
klaas@ffrkonicaminolta.co.za

# MATRIX

## WAREHOUSE

### COMPUTERS

*Shaping the Future of IT...*

ESTABLISHED IN 2000

#### MATRIX WAREHOUSE SPECIALISES IN THE FOLLOWING:

- CUSTOM BUILT PC'S
- CALL OUTS (T&C'S APPLY)
- ONSITE REPAIRS
- VIRUS REMOVALS
- TECHNICAL EXPERTISE



Who Needs Nerds  
When our Qualified  
Technicians are  
Just a Call Away  
For an INCREDIBLE Experience



#### MATRIX WAREHOUSE CALLOUT RATES

1. Call out charge is R250-00 and it includes the first hour.
2. Every additional hour or part thereof will be charged at R200-00 per hour.
3. Travelling charges at R4-00 per km.

Tel: 011 869 2614/3 Or visit [www.matrixwarehouse.co.za](http://www.matrixwarehouse.co.za)  
• for your nearest branch

# Frequent Fliers: BIRD MIGRATIONS

Having a summer house and a winter retreat sounds like a luxury. But for migratory birds it's a necessity. With the weekend of 10–11 May being World Migratory Bird Day, we bring you some recent findings about these amazing migrations.



**19%**

The percentage of bird species that migrate annually

## 1. Bird brains

Studies show that migrating birds likely not only use sensory cues to map their routes but also rely on long-term memory. In a study where birds' memory of a location with ample food was tested, migratory birds accurately returned to the spot a year later. In contrast, their stay-at-home cousins could find the spot only for only about two weeks after their first visit. This suggests that birds can load their navigational system with prior info and so improve their travel success.

## 2. Due north

Finding magnetic particles in birds' beaks, with a direct nerve link to the brain, suggests that birds have some kind of internal compass. To find out how the system works, scientists moved a group of birds to a spot 1000 km east from where they usually turn home. This meant the birds would have had to head northwest instead of the usual northeast to find their way back home. Birds whose beak-brain nerve was cut, set off northeast as usual. But those with an intact nerve adjusted for the displacement and correctly headed northwest. This suggests that the beak-brain nerve is important for relaying info about the current location relative to home.



**2015**

The year when a special radio receiver will be fitted to the International Space Station to track birds' and other flying animals' flight patterns.

## 3. We know what you did last summer

In July 2007, scientists fitted a group of Arctic Terns with tiny data loggers before they set off south. On their return a year later, the recorded data showed that the birds' round trip, from the North Pole to Antarctica and back, covers about 71 000 km. On the southward leg the birds fly along either the west coast of Africa or the east coast of South America, but on the way back, they follow an S-shaped route across the Atlantic. They also fly much faster heading back north than down south, possibly with the help of strong tail winds. Watch their journey here: [www.arctictern.info/](http://www.arctictern.info/)




**2.4**  
million kilometres

The estimated total distance an Arctic Tern flies in its lifetime.

## 4. Flappy birds

On-board flight recorders seem to be the preferred tracking choice for bird migrations these days. The problem, though, is that the device needs a light-weight sustainable power source for the whole journey. So, scientists at Cornell University have developed a tiny bird backpack that converts the bird's wing flaps and other body movements into electric current to power a tiny data recorder. The device can also store power for when the bird is not



in flight to ensure uninterrupted data recording for the whole journey.

**300  $\mu$ W**

The amount of power that can be harvested from wing flaps

## 5. Nap while you flap

Migratory birds have a few tricks to get them through their long non-stop flights.

Studies have shown that, while in flight, birds can take short power naps, switch off one side of their brain for a bit and coast on autopilot for a few seconds.

These short sleeps last no longer than 30 seconds. Birds have quite short sleep cycles, so the brief naps throughout a day seem to provide enough rest for the birds to stay airborne for days on end. [LP] **ts**



**200**  
days

The number of days of uninterrupted flight recorded for an Alpine Swift.

Sources:  
Snippet 1: [bit.ly/1fys437](http://bit.ly/1fys437)  
Snippet 2: [bit.ly/1pxmVC9](http://bit.ly/1pxmVC9)  
Snippet 3: [www.arctictern.info/](http://www.arctictern.info/)  
Snippet 4: [bit.ly/1gWWJh](http://bit.ly/1gWWJh)  
Snippet 5: [bit.ly/1pxmVC9](http://bit.ly/1pxmVC9)



## SCIENCE

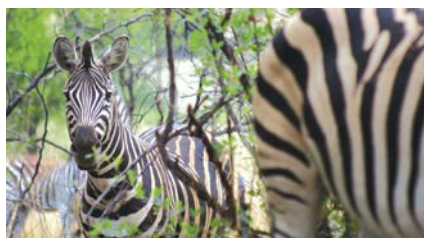
PIC OF  
THE  
MONTHImage:  
NASA

## Get a leg up!

You might not know it, but the International Space Station has a robotic crew member called Robonaut 2 (R2 without the D2) onboard, used to do repetitive tasks in order to free up time for crewmembers. April was R2's lucky month, since it received a brand new pair of legs. The legs have an extended span of 2.7 metres, each with seven joints and a type of foot called an "end effector". This is all good, but our question remains – can it say "Good morning, Dave" in a HAL 9000 way?

# SMART ANSWERS

Life is full of questions that need smart answers. We can help.



## Zebras and their stripes

**Why do zebras have black and white stripes?** To keep tsetse flies away.

**Huh?** Yes, it sounds odd. But previous lab research showed that tsetse flies tend to avoid black-and-white surfaces, which suggests that the patterning deter the insects in some way. So scientists set out to test the hypothesis in the field.

**And what did they find?** When they mapped the spatial distribution of striped hooved animals and tsetse flies, they found that the areas overlapped strongly – more so than for any of the other variables they tested.

**But why would zebras need extra protection?** Zebra hair is shorter than that of the mouth parts of tsetse flies. Other stripy hooved animals don't have the same problem though, which means zebras are easier targets.

Source: [bit.ly/1jwti3p](http://bit.ly/1jwti3p)

## The journey of a sneeze

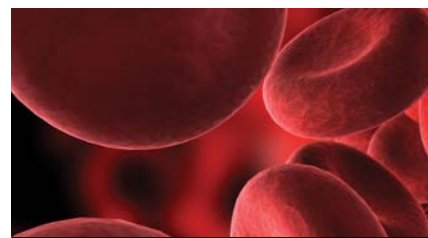
**How far does a sneeze travel?** Further than you think. In fact, up to 200 times further.

**What?!** Yup. Scientists looked at high-speed images and mathematical models of sneezes to see how the droplets travel.

**And the result?** The analysis showed that when you sneeze, the droplets form a gas cloud as they escape from your airways, almost like a puff of smoke.

**So what?** Because the air movement in the cloud sweeps the droplets up and around all the time, they travel much further before eventually dropping out.

**What's the next step?** The researchers think their finding may help us to better understand how airborne diseases spread. They are planning to track specific droplets that contain disease-causing organisms to see where the buggers go once they leave your body.

Source: [bit.ly/1oJYYqK](http://bit.ly/1oJYYqK)

## How to kill cancer cells

**Did scientists find the holy grail?** Not quite yet, but they're a few steps closer.

**How so?** A recent study describes the use of magnetic nanoparticles to destroy cancer cells. The technique is much more targeted than current therapies, which means there's less damage to tissues around the tumour.

**How does it work?** Nanoparticles of iron oxide bind to the cancer cells' self-destruct buttons called lysosomes. When a magnetic field is applied, the iron oxide particles begin to rotate in such a way that they switch on the lysosomes. And then boom!

**But has magnetism not been used in the battle before?** Yes, but rather than using a magnetic field itself to kill the cells, the new approach uses magnetism to make the cells go kamikaze. [LP] **ts**

Source: [bit.ly/1dXCIF9](http://bit.ly/1dXCIF9)

# MEGASTORE

## *Mega Deals*



*live beautiful*

curtains • furniture • carpets • laminated flooring • lighting • blinds • linen

*get connected*

cameras • laptops • ipads



**ONLINE SHOPPING**  
[www.metrohomecity.co.za](http://www.metrohomecity.co.za)

**Tel: 012 326 6460**  
[info@metrohomecentre.co.za](mailto:info@metrohomecentre.co.za)





*live comfortable*  
kitchen appliances • heaters  
water dispensers • airconditioners

*be entertained*  
home theatre systems • tv's • dvd players

*outdoor living*  
braai • bicycles

*fabulous fabrics*  
bridal & evening wear  
local & imported



EXCLUSIVE TO  
410 Madiba St. (Vermeulen), Pretoria  
GPS: S2544.65' E2811.86'

**WE DELIVER**



# New Car TECH ROUNDUP

2014 may be the year of the horse, but focus seems firmly fixed on cars; with many manufacturers poised to bring a greater level of technological advancement to their vehicles than ever before. We compiled a selection of the key car tech trends making their way onto the world's roads in the not too distant future.



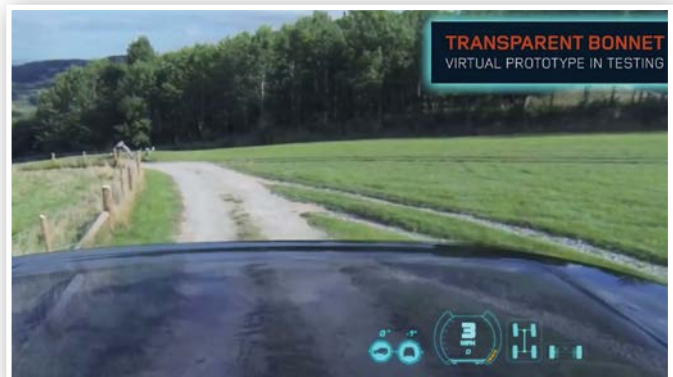
## Land Rover's new Discovery Vision Concept is clearly different

Any avid 4x4 enthusiast will tell you that a clear line of sight is vitally important when handling difficult off-road terrain, or negotiating the tightly packed parking lots of Sandton City. In order to make such perilous endeavours a little easier to handle, Land Rover has been touting its new Transparent Bonnet technology. This advancement is set to showcase later this month at the New York International Auto Show on the newly designed Discovery Vision Concept vehicle.

Land Rover's Transparent Bonnet technology is essentially an augmented reality interface for the front-end of your vehicle. As a series of grille-

mounted cameras capture real-time video of the terrain in front of the car. This video is then translated into a HUD (Heads Up Display) that appears on the vehicle's windscreen, which creates the illusion of a see-through hood.

Land Rover is also advocating the newly developed Transparent Bonnet technology for racing application, in one of the British manufacturer's Jaguar sports cars. The unique perspective that the Transparent Bonnet affords will allow drivers to perfect their racing lines and better see how accurately they hit the apex when cornering.



## Nissan unveils LCD-based Smart Rearview Mirror

Another new technology unveiling at this year's New York International Auto Show, Nissan's debuted the world's first LCD rearview mirror. This newly designed rearview mirror, which was fitted on the Nissan Rogue SUV, is intended to provide unimpeded and clear rear visibility in day and night conditions.

While on show in New York, Nissan showcased this value-added spec which will offer drivers a greater level of surety should the viewing angle from a traditional rearview mirror be obscured by any object. Drivers will further be able to quickly alternate between the traditional view and the LCD version.

The Smart Rearview Mirror is equipped with a newly developed narrow-angle camera and a specially shaped LCD monitor, with an unique aspect ratio of approximately 4:1.



## Apple CarPlay brings iOS to the dashboard

Apple's new in-vehicle operating system, CarPlay was recently unveiled in a host of cars premiering at the Geneva Motor Show, the most notable of these being the Volvo Concept Estate.

Application developers are still fine-tuning their products for CarPlay use, but Apple has already detailed some of the key features that every driver will expect from a car control panel. Chief among these are Phone, Music, Maps and Messages. Based on the model of car, CarPlay will also have full Siri voice activated control. Just be aware that CarPlay is not for everyone, as Apple has stated that device compatibility only extends to the iPhone 5 and beyond. As far as manufacturers go, CarPlay will be rolling out in late 2014 car models from companies like Honda, Hyundai and Ferrari.

It would seem as if the next great battleground for technology designers to square off, is in your car. As Microsoft recently announced plans to develop a new version of Windows in the Car in the near future. It also appears that Google will also be entering the fray, with proposed in-car version of Android rumoured to be in the works.



## New S-Class Coupe truly beats the bends

The S-Class has traditionally been one of the most technologically advanced vehicles on the road, with previous models first to feature cruise control, park distance sensors and climate control. The German manufacturer has similarly integrated an innovative feature into its newly released two-door S-Class Coupe, which boasts an adaptive banking system for stabilised cornering.

Mercedes-Benz's new Active Curve Tilting system makes use of a front-mounted camera and lateral accelerometer to instantly assess and calculate upcoming corners up to 13.7 metres away. The S-Class Coupe's sophisticated suspension system then adjusts the respective side of the car, by "leaning" the vehicle's frame by 2.5 degrees, as well as raising and stiffening the inside wheels to ensure the driving experience remains as smooth and comfortable as possible.

Mercedes-Benz has stressed the fact that this technology is not designed to improve a car's handling, but rather enhance the overall ride comfort. The Active Curve Tilting system looks set to feature in more Mercedes car models in the future, with the new GLA SUV fitting the same technology for 4x4 and off-road application.

The S-Class Coupe and GLA-Class SUV are both set for early release in 2015 and should see competitors designing similar cornering technologies in the future.

## Netherlands roads set to light it up

In last month's issue of TechSmart we had a look at the Lotus C-01, designed by Daniel Simon of *Tron: Legacy* fame. It seems rather fitting then, that we clue you in on the equally *Tron*-esque Smart Highway, which comes courtesy of Studio Roosegaarde in the Netherlands.

Among its many innovative integrations, the Smart Highway features glow in the dark lane markings, which have been coated with a special photo-luminising powder that glows when light from car headlamps are shone upon it. Studio Roosegaarde also developed a Dynamic Paint that becomes visible when temperatures fluctuate. The Dutch designers have said this Dynamic Paint could be used to communicate vital information to commuters. For example, if the roads are covered in ice, the road could theoretically display a series of snowflakes, which would illuminate based on the extremely cold conditions. Capable of absorbing sunlight throughout the day to "charge" itself, the Smart Highway has the potential to light up roads for up to 10 hours, according to the company.

Currently in the testing phase, the Smart Highway is being used on a 500 m stretch of road in Eindhoven in the Netherlands. It should prove interesting to see just how well it works and how much power it could actually save busy metropolises. [RC] **ts**



# THE FUTURE of education

In the age of the internet, as innovation and technology continue to push society ever forward, education has not been resting on its laurels, changing in its own exciting, sometimes weird way.



## 1 Crowdsourced lessons

With the likes of Kickstarter and Indiegogo illustrating the benefits of crowdsourcing, we shouldn't be too surprised that the crowdsourcing trend has made its mark, by providing digital lessons to students who need a little extra help outside the classroom.

Indeed, online, crowdsourced digital lessons library, Learning Bird, along with the likes of Khan Academy, indicate that crowdsourced extra lessons are certainly a trend worth watching out for. Learning Bird, which is one of the newer entries into crowdsourced learning, currently boasts 7 000 lessons and 3 000 teachers, just in its test area of New York, Texas and Quebec alone. The trend though offers a win-win for those struggling with a particular subject, and teachers seeking to supplement their income, alike. In a little twist, teachers' lessons, which can include worksheets and video, can be graded by their viewers if the student likes their teaching style.

## 2 Are we (virtually) there yet?

In the not so distant future, the use of modern-day virtual reality (VR) headsets are also expected to make their mark on education, and are already benefiting from serious investment this time seeing the technology come to fruition. Indeed, Facebook's substantial acquisition of Oculus Rift made it clear that it is a technology being taken very seriously, and Mark Zuckerberg has stressed that the company considers Oculus Rift attractive not just for entertainment purposes, but education as well. For example, one of the possible uses of the technology according to Oculus Rift creator Palmer Luckey, is enabling students to take an educational trip to Rome or journey back in time and explore the Giza pyramids, without so much as setting foot on a rowdy bus, or having to hop into a time travelling machine.

VR technology could just as easily be used to host virtual study sessions with other students from around the world. Given that Facebook recently acquired Oculus Rift, expect strong social features to be merged with virtual education.



## 3 If you build it...

Also stirring potentials and possibilities in the field of education is the technology of 3D printing itself, particularly when you consider how 3D printers are already being used. At Virginia Tech, students are using the technology to produce 3D vehicles (specifically, drones), while Connecticut students at Renbrook School are experimenting with the possibilities 3D printers provide, printing parts to fix broken items. The idea behind incorporating 3D printers into classrooms is twofold. Firstly, it enables students to conceptualise and design their idea for a product and then produce it on the spot. This means they can quickly and test their idea to see whether it works, or whether they need to go back to the drawing board. This kind of hands-on, real-world interactive learning is a far cry from simply reading about manufacturing processes, or memorising facts about other people's ideas.



## 4 Send in the Polymaths

Instead of necessarily going to university to get a degree, in the near future, budding entrepreneurs and innovators may rather turn to higher education to complete a project as the demand arises. As just one example, this is the vision of the online Polymath University, where students can learn what they desire and need to fulfill an objective, rather than having to fulfil the requirements of completing a major in order to get a degree. What's more, the institute also intends offering a start-up incubator, enabling students to use coursework to bring their idea to life and then to the world at large. [RN] **ts**

POLYMATH FOUNDATION



# LEARNFAST REDEFINES distance learning



**With remote working quickly becoming a norm in the professional world, it was only a matter of time before distance learning stepped up to the next level, and now Learnfast is pioneering a new path with its Assisted Distance Learning.**

It's not difficult to conceive of a society in which both bricks and mortar classrooms and steel and glass offices have been all but replaced by the internet. Indeed, remote working is already adopted by many companies, and learning has long since passed the stage of simply imparting knowledge; today's learning is even more about preparing students for today's working world, in which almost every industry is finding itself being forced to adapt and even evolve in its own unique way.

## **Learnfast and learn easy**

Pushing this vision even further into pragmatic reality is Learnfast, which has now combined the best parts of in-class training, distant/correspondence learning and online self-paced learning, to create a unique and effective Assisted Distance Learning offering.

Along with the fact that a student's progress is managed online, all Virtual Classroom sessions are recorded and made available for download afterwards. This is valuable, particularly for users who may not be able to attend the online help sessions as they occur, as it means they can still watch them afterwards, at their own time. It also means that students can watch these sessions repeatedly, for maximum absorption.

## **By your side**

Learnfast's approach is significant for several reasons, perhaps the most enticing being that it means students can study wherever they are, and at their convenience, but without the sense of isolation that could arise for some when partaking in e-learning courses. Thus, students effectively have the best of both worlds – they don't need to attend a class in person, which could otherwise present problems to students who live in remote areas or in locations

far from a Learnfast training centre. At the same time though, Learnfast's Assisted Distance Learning approach takes cognisance of and addresses that sense of live interaction and hands-on help which is so invaluable to students as they grapple with a new, perhaps unfamiliar, topic.

Indeed, Learnfast provides this sense of being guided from the beginning, as new students are given an orientation session when they register, which familiarises them with the program and the virtual classroom sessions. Students will be required to view at least one of these per week, as they address frequently asked questions and difficult topics. No less important is the application of help being constantly at hand; with students able to submit their questions online, participate in the online forums and ask their instructor for assistance during virtual classrooms sessions.

Furthermore, the Learnfast program assigns students with their own personal tutor, who is an expert in the student's field of study. At present, Learnfast's Assisted Distance Learning programs run the gamut from general computing courses (Microsoft Office Excel beginners, intermediate and advanced) to CAD and graphics programs (AutoCAD Essentials, Autodesk Revit Architecture Essentials and Adobe Photoshop for beginners). Also available is the Microsoft SQL Server for Beginners and the three day Project Management Bundle course, which consists of Project Management Fundamentals; MS Project Planning Phase 1 and MS Project Managing and Executing. **ts**

To learn more, or to register:  
**visit** [www.learnfast.co.za](http://www.learnfast.co.za);  
**call** 011-262-2054; or  
**email** [training@learnfast.co.za](mailto:training@learnfast.co.za)



## **WHAT IS A VIRTUAL CLASSROOM?**

A virtual classroom is an online space in which both students and the teacher/lecturer is online and participating in the course material at the same time. This means they can interact with each other, in real time, with students asking, and the lecturer responding, to queries as they arise. To cater to students, Learnfast's Virtual Classroom sessions are held twice a week, and are also recorded and made available for download to view at a later date.

by Mynhardt van Pletsen

# Autumn **STYLE**

It's easy to get confused in inbetween times – when you get the best – and the worst – of all four seasons wrapped into 24 hours. Because we've all been there, we're going to help you to wash your hands of this seasonal weirdness, and stand strong amidst the currents of climatic change.

## KEEPING IT SIMPLE

Successfully navigating the neither-here-nor-there nature of autumn, is going to take some serious fashion restraint on your end. Most stylistas refuse to let their summer style romances die with the turn of the season, or even worse, dramatically dress as if the worst of Westeros is already upon us. You however, will stock your autumn wardrobe with an elegant and gentlemanly approach that not only testifies to your subtle strength, but also your established sense of style.

Sticking to neutral colours, you can never go wrong with a fine knitted item during these chilly mornings and warmer afternoons. Start introducing initial layers into your collection, with a range of tailored dress shirts. To keep them both interchangeable and interesting, get some in dove grey, sky blue and snow white.

If you're going to stick to the age old advice of dressing from light to dark from top to bottom, make sure to stick to pants options that are both darker in colour, and heavier in texture.



Pressed dress shirt.  
R500 for two, Vertigo.



Grey knitted cardigan with elbow patch inserts. R400, Cignal (Markhams).



Caterpillar Collins Mid Boot.  
R1 300, Cape Union Mart.



## KICKING IT UP

Although we're slowly but surely creeping into the season of monochromatic melancholy, we're most definitely not against a splash of colour, reminding us that warmer days are yet to come. Keep yourself and your dress sense inspiring, by offsetting your minimalistic approach with some ridiculous reds and yummy yellows.

Ideal places to show some awesomeness, would be with your belt and socks. For once, think beyond that boring piece of leather around your waist. Go for a boldly coloured woven option, in either stripped leather or fabric. Colour code your look with equally joyous socks.

Getting to the bottom of things, we can finally announce what all men's men have been waiting to hear: it's boots time! Dust of your old faithfuls, or invest in a sick pair of new ankle highs. This season prefers tan and light grey options with flatter soles. Leave the steel tips for another day. **ts**

Noah wooden sunglasses. R500, available locally at [www.noah-life.com](http://www.noah-life.com).



Hugo Boss Just Different 75 ml. R635, Truworths.



Cotton scarf. R250, Aldo.



Patterned socks. Various options locally available via [www.nicsocks.com](http://www.nicsocks.com).

# Grooming: SKIN CARE

Yes gents, you have skin too – it will get older, and, yes again, it will start to look like weathered leather before your 40th birthday, if you don't take care of it. We're here only to give you some extra pro-tips on what you can add to your face-care repertoire with four easy steps – shave, soap, scrub, soak.

## Nivea Men Post Shave Balm, R65.

The first step to great skin is to show it. Shaving regularly not only gets rid of unwanted facial growth, it also gives your skin a chance to breathe. Thanks to the invention of the post-shave balm, we don't have to torture ourselves into a glowing complexion anymore.



## L'Oreal Men Hydra Energetic Purifying Wash, R75.

Washing your face sounds kind of obvious, but know this, you can butcher your mug if you don't use the right stuff. You simply can't wash your nose and your toes with the same soap.



## Dove Men+Care Scrub, R45.

Exfoliation might sound like something you'd do to your blocked-up '74 Cortina, but no, you'd be wrong. Getting unwanted particles off your face creates room for your new self to truly shine forth. Believe us when we say, follow the instructions on this one.



## Vaseline Men Face Moisturiser, R50.

Now that you've cared the living daylight out of your skin, it's time to replenish some of that lost natural goodness. A quality evening moisturiser is as close to a splash in the face from a Drakensberg mountain stream as you're going to get. **ts**



# 5 of the best 3D PRINTED OBJECTS to date

3D printing is truly pushing the tech boundaries. Here is a list of the best 3D printed objects which showcase groundbreaking innovation and awe-inspiring creativity.



## Bionic Ear

The first genetically designed Bionic Ear is the result of combined efforts from researchers at Princeton and Johns Hopkins Universities. The template for its construction was pulled from Thingiverse (a 3D printing design template site) and incorporates a radio frequency antenna and cochlea-shaped electrodes.

The ear itself is formed from cartilage cells, which were developed while being 'fed' a complex mix of proteins to promote a specifically designed growth. What makes this bionic ear truly amazing is that it can pick up frequencies and information from radios, televisions and even Wi-Fi. It's important to note that this ear is not fully functional, yet.



## Prosthetic Arm

What makes the feat of manufacturing a 3D printed prosthetic arm so impressive, is its creator, 17-year old American High School student, Easton LaChappelle. Upon hearing that a young girl was wearing a top of the line prosthetic arm for roughly \$80 000, it got Easton thinking – why not build an inexpensive alternative?

Easton enlisted the use of a friend's 3D printer and began working on designs with Solidworks (a 3D printer design program) as well as pre-made parts on Thingiverse. His time and effort paid off, and he was able to design and build a working prosthetic arm that cost only \$250 (excluding cost of 3D printer), far less than the \$80K alternative.



## URBEE 2 Car

The next inclusion on our list, the URBEE 2 from design house KOR Ecologic, looks like something out of *The Jetsons*. Its conical shape is rather odd when compared to current everyday cars on the road. The initial inspiration behind the design of the URBEE 2 was to create a car that not only looked unique, but also economical to manufacture and drive.

This led to a hugely ambitious plan to drive the URBEE 2 across America (4 700 km) on a single tank of fuel. The proposed deadline for this two day long project is slated for mid-2015, with the URBEE 2 carrying two people and a dog on only 38 litres of fuel.



## Cortex Forearm Cast

Designed by New Zealander Jake Evill, the Cortex forearm cast is a revolutionary breathable, removable and washable alternative to the plaster casts used today. After suffering an arm break and being a budding designer himself, Jake saw the opportunity to create a cast that was not only aesthetically appealing, but also more cost effective and recyclable.

In order to get a solid 3D scan of his forearm, Jake hacked the Kinect unit of a Microsoft Xbox 360 and designed a honeycomb-like structure around it. The result was something that not only looked like it came from a sci-fi movie, but also seemed to have tangible real-world application.



## 3D Print Canal House

Currently in development along the canal banks of Amsterdam, from Dutch-based architecture firm, DUS, the 3D Print Canal House will be the very first of its kind in the world. DUS had to enlist the assistance of KamerMaker (3D Printer specialist) to manufacture a brand new printing machine, the KamerMaker XL, capable of creating the 2.5 metre tall room blocks for the 13 room Canal House design.

Apart from being uniquely constructed, the Canal House utilises recycled materials and has great potential in low-cost housing applications down the line, as it can drastically reduce waste and transportation costs. [RC] **ts**

# Top 5

# REMAKES

When it comes to film remakes, most of the time it's a case of you win some, you lose some. Movie fundi Splicing passes the losers to bring you all the winners.

## A Fistful of Dollars

1964

Sergio Leone's breakthrough Spaghetti Western, *A Fistful of Dollars*, is a cinematic milestone. It set in motion some of the greatest Westerns committed to film and established film careers for its director and Clint Eastwood in his first appearance as the Man with No Name.

Akira Kurosawa's *Yojimbo* (1961) is the source for this remake, which tells the story of a ronin, who arrives in a small town where two rival crime lords try to hire the rogue samurai as a bodyguard. Leone's remake simply turns rural Japan into dusty Mexico and the crafty warrior into a drifter gunman.

**Better than the original?** Leone's influential Western reinvention holds up as a standalone film.



## Invasion of the Body Snatchers

1978

The original *Invasion of the Body Snatchers* (1956) is based on the novel by Jack Finney and regarded as a genuine Sci-Fi classic. This black-and-white science fiction film depicts the extra-terrestrial invasion of a small Californian town as a doctor stumbles upon an alien plot to replace humans with emotionless duplicates.

The creepy and thrilling 1978 remake shifted the story to San Francisco and casts Donald Sutherland (with *that* scream), Brooke Adams and Leonard Nimoy. Philip Kaufman's horrific re-imagining features a number of clever cameos, including the opening scene with Kevin McCarthy, the star from the original.

**Better than the original?** Kaufman's tense remake builds upon the successes of the original. More so than the recent remake *The Invasion* (2007) with Nicole Kidman.





## The Thing

1982

Based on the novella, *Who Goes There?* Howard Hawks' *The Thing from Another World* (1951) is considered a 1950s science fiction great. It follows an Air Force crew of scientists at a remote Arctic research outpost, who are confronted by a dangerous, plant-based humanoid alien.

John Carpenter's (*Halloween*) terrifying 1982 remake starring Kurt Russell was lauded for its ground-breaking animatronics, which were both impressive and deeply repulsive (try watching the autopsy scene). Featuring a shape shifting alien, crew members turn on each other in order to kill the intruder. While it underperformed at the box office with mixed reviews, competing with *E.T.* and *Blade Runner*, it has spawned a cult following on home video and is now considered a horror classic.

**Better than the original?** The disturbing animatronics add another layer to this classic sci-fi monster film. Just don't try the more recent 2011 remake.



## Casino Royale

2006

Dubbed the original spy spoof, *Casino Royale* (1967), was turned into a Bond satire when the film-makers couldn't get the rights to make it an official Eon Productions Bond film. The collaborative spoof starred an ensemble of directors and actors including Peter Sellers, Woody Allen, Orson Welles, Ursula Andress and David Niven as the "original" Bond.

After acquiring the rights in 1999, Eon Productions rebooted the James Bond franchise with its 2006 version. The edgy remake of *Casino Royale* was the first outing for Daniel Craig as Bond, who represented a dramatic character shift, showing a more intense and vulnerable 007. It was darker, grittier and leaner, relying more heavily on the script than spy gadgetry and visual effects.

**Better than the original?** An edgier, action-packed Bond makes this a Royale Flush.



## The Fly

1986

The original *The Fly* (1958) is a science-fiction horror classic loosely based on George Langelaan's short story of the same name. The original adaptation was directed by Kurt Neumann, and starred cult icon Vincent Price. It went on to become a critical and commercial success at the box office.

The 1986 horror remake was just as well-received by critics and audiences, despite being gory and made by the controversial director, David Cronenberg (*Videodrome*, *Crash*). The film established Jeff Goldblum's acting career, and the Academy Award-winning make-up and graphic creature effects helped update the tragic and affecting love story for modern audiences.

**Better than the original?** Advances in art technology and a smart disease metaphor make a big difference. **ts**

# NEW Cinema RELEASES



## Filth (1 May)

James McAvoy has been described as a Scottish Michael J. Fox and if we didn't know any better, he could be Gerard Butler's kid brother. Well, these are the kind of comments that have driven him to the edge, opting for darker, more disturbing film roles. Now he's getting down-and-dirtier in the aptly titled dark comedy

crime drama *Filth*, in which he plays a bipolar, bigoted junkie cop. Based on *Trainspotting* writer Irvin Welsh's 1998 novel, it's safe to assume this cesspit of filthy fun is not for the faint-hearted – just watch the trailer.

**Why watch?** McAvoy's complex performance is worth having to shower, twice.



## X-Men: Days of Future Past (23 May)

While the debate is ongoing whether they are as cool as The Avengers, the X-Men have clawed, and burnt their way into our hearts and psyches. Just when we thought we would have to endure another Halle Berry superhero film, they

unleashed *X-Men: First Class*. They've gone and supersized the follow-up, *X-Men: Days of Future Past*, and it really doesn't get much more epic than meshing the old with the new in a time travel plot to bend the spoon (and your mind) to breaking point. Featuring big names like Patrick Stewart, Ian McKellen, Hugh Jackman, Jennifer Lawrence and big things, like Sentinels... dun dun dun.

**Why watch?** Superheroes, time travel... it's a no-brainer.



## Transcendence (30 May)

Christopher Nolan's trusted cinematographer, Wally Pfister, has emerged from the shadows of *The Dark Knight* to direct his own film *Transcendence*, about a terminally ill scientist who uploads his mind to a computer. When you've worked

with Nolan, it does make getting Johnny Depp to play 'The Lawnmower Man' in your directorial debut that much easier.

This exciting science-fiction mystery concept is beautifully filmed and backed by name stars like Morgan Freeman, Paul Bettany, Cillian Murphy and Rebecca Hall. We saw Captain America dealing with a similar predicament in *The Winter Soldier*, but with great internet access, comes great responsibility.

**Why watch?** Just in case you upload your mind one day.



## Godzilla (16 May)

If that Puff Daddy song and Matthew Broderick are the only things you remember from the 1998 *Godzilla* movie, you'll be pleased to know he's back. No, not Puff Daddy, but Japan's favourite monster, Godzilla, and just in time for his 60th anniversary.

The latest *Godzilla* has been influenced by films like *Cloverfield* and *Pacific Rim* in the handling of its rather large title star. *Monsters* director, Gareth Edwards, knows a thing or two about atmosphere and has assembled a strong cast of actors, including Bryan

Cranston, Aaron Taylor-Johnson and Juliette Binoche, to bring this epic disaster film to life.

**Why watch?** Walter White vs. Godzilla – in 3D.



## Under the Skin (23 May)

As if it wasn't already enough that she's everywhere and in everything, Scarlett Johansson has decided to make it blatantly obvious by starring in a film called *Under the Skin*. Hollywood's blonde bombshell with brains has gone for an unusual starring role, playing a cold alien seductress. With a fetish for hitchhikers. In Scotland. The only

thing stopping this from being a full-blown comedy or a one-note erotic thriller like *Species* is director Jonathan Glazer. The director's music videos (Radiohead, UNKLE) and previous films, *Sexy Beast* and *Birth*, should prepare you for just how dead serious Johansson and this Kubrick-style science-fiction thriller really are.

**Why watch?** Because you know you would love to be picked-up by Scarlett.

## Friday the 13th Reboot to boot

When Michael Bay acquired the rights to the *Friday the 13th* franchise in 2009, he never would have guessed he'd have to reboot... twice. Instead of a box office blood bath, Jason's big return was more of a belly flop under Marcus Nispel. Bay is looking to resuscitate the teen slasher franchise once more by going the found footage route with *V/H/S*'s David Bruckner in talks to direct and a release date in March 2015.



## Channing Tatum gambling on Gambit

While he's acted in many action movies, it's quite surprising that Channing Tatum is yet to commit to a superhero role. The Hollywood star revealed he's been in talks to play Gambit, an X-Men character, who may be getting his own spin-off if all goes to plan. With the forthcoming *X-Men: Apocalypse* and a Gambit project in the pipeline, Tatum is dead keen to play the drinking, smoking, ladies man and Cajun anti-hero. **ts**



MOVIE NEWS

# Don't WING it, SPLING it!

For awesome movie news and insightful reviews visit: [spling.co.za](http://spling.co.za) | [splingmovies.mobi](http://splingmovies.mobi) | [spling.mobi](http://spling.mobi)





# TOP Tweets!

**Alexander de Coning** @SenorBlinky · Apr 17

After my family, my dogs, and ice cream, I discovered the one thing that I love the most in this world: Approval of Draft 1.

**Lazola Gola** @LazGola · Apr 16

Only in South Africa do we say 'Only in South Africa' for things that clearly don't occur Only in South Africa...

**Not Will Ferrell** @itsWillyFerrell · Apr 15

Next time a stranger talks to me when I'm alone, I will look at them shocked and whisper quietly, "You can see me?"

**Shaun Wewege** @shaunwewege · Apr 14

I want to open a comedy club on a wine farm and call it "Peter Cellars".  
I'll let myself out.

**Kevin Wango** @KevinWango · Apr 13

@TechSmartMag your magazine gets better and better I love the new nike boots

**Shari VanderWerf** @shariv67 · Apr 11

McDonald's needs to stop selling our kids the dangerous idea that clowns can be rich and powerful.

**Mike Primavera** @primawesome · Apr 4

"Hey what are you doing tonight?" is a trap.

**Tauriq Moosa** @tauriqumoosa · Apr 11

Imagine you're dead and the only person you can ever speak to is John Edward. I'd want to die all over again.

**Deep Fried Man Kills** @DeepFriedMan · Apr 10

I've got nothing against Instagram, it's just that thanks to them I really don't know what to call my cocaine delivery service.

**Don Packett** @donpackett · Apr 10

By the power of Greyskull, I have the power.

**Jerm** @mynameisjerm · Apr 7

Barry Roux and Gerrie Nel are so good that, if they were to cross examine each other, they'd disappear and we'd be left with a singularity.

**Night Vale podcast** @NightValeRadio · Apr 6

If you love something, set it free. If it doesn't come back, it probably died of sadness because it thought you loved it.

**Brick Tamland** @Ch4BrickTamland · Apr 5

If will-i-am's gravestone doesn't say will.i.was, I'll be pretty disappointed

**Alyn Adams** @alyndenzel · Apr 11

Idea for reality-TV show: Transport Min explains why: eTolls are fair/roads aren't privatised/how successful roll-out is. Nel cross-examines

**Tom Eaton** @TomEatonSA · Apr 9

The news that her report is #whitepeopleslies must be a terrible shock to Thuli Madonsela, who, until today, thought she was black.

MAY 2014

## techsmart's Horoscope

As above, so below –  
how will your tech month go?



### TAURUS

Is everyone else a figment of your imagination, or are you one of theirs? Put differently, are you playing The Sims, or are you a Sim? Best way to figure this out is to start your own creative project and see what you can come up with. And don't let Simoleons stand in your way.

### GEMINI

May's purpose is to settle you into the thought of winter, curled up snugly in your bed. Better get used to that, Gemini, since a bout of flu will strike you down come the 15th.

### CANCER

It's election month in May, Cancerian. The stars predict that while casting your vote, you will be struck by the feeling that maybe voting for politicians to rule a country is an outdated system, and that there must be better options to consider.

### LEO

Your workplace is starting to resemble a Game of Thrones episode, Leo. Even the dragons are there if you use your imagination. It's time to leave the set and create your own awesome series.

### VIRGO

There is a desperate search going on for a manager over at Manchester United, Virgo. Guess what? You're it. Yes, you! Because even you can do a better job than Moyes.

### LIBRA

It's all about balance during the month of May, Libran. Work or leisure? Activity or rest? Buying that awesome lens you've always wanted or eating? Enjoy the new glass!

### SCORPIO

Your cellular provider has lowered its call cost, Mr. Scorpion. That's well and good, but all you really need is cheaper broadband. Are they really worried about money from call rates, if data is the future? The stars want you to ponder this.

### SAGITTARIUS

The stars can see that you've been missing some much needed sleep recently, Sagi. Actually, everyone can see those bags under your eyes. To keep up appearances we would recommend applying some lightening eye-shadow to reduce the effect. And a bit of blush, mascara and then some lipstick.

### CAPRICORN

Your favourite band is about to split. Sorry.

### AQUARIUS

That band you hate is about to split. Congrats.

### PISCES

How does Dr. Bruce Banner keep the Hulk under control? Meditation, and lots of it. The stars says it's time to master your own Hulk, Mr. Fish. Just do it.

### ARIES

Two is the magical number this month, Aries. Seeing that not only one, but two of your smartphones will crash to the floor this month. Happy calling! **ts**

# RISE OF THE INDEPENDENTS:

# THE SA COMIC BOOK SCENE TAKES OFF

Comic book expert, Moray Rhoda, believes now is the time to get involved in the local comic book scene.



I've sung the praises of SA comics in this column before, but there has never been a better time to get involved with local comics than this very moment. More local comics are being produced than ever before and at quality and production values that rival international comics.

In the last five years several new individual comic creators have come to the fore, drastically improving the range and diversity of SA comics. Gone are the days of bitter social commentary and dire political satire, replaced instead by a new generation of artists and writers exploring fantasy, sci-fi and speculative fiction. Comics like *Wrath*, *Gofu* ([www.uocomics.com](http://www.uocomics.com)), *Oneironaut & Other Tales*, *The Lil 5* ([www.lilfive.com](http://www.lilfive.com)) and *Cottonstar* ([www.cotton-star.com](http://www.cotton-star.com)) are great examples of well-produced, technically proficient and entertaining books. But these are only the tip of the iceberg, since come 3 May on Free Comic Book Day, 15 new SA comic books are set to launch.

## The events are working

Over the past few years, local events like UCON, ICON, rAge and Open Book Comics Fest have helped local independent comic creators get their books out to new audiences. These kind of events are critical to the future of SA comics, for a couple of reasons. Firstly, the events come with built-in audiences that are already positively primed to appreciate comics and financially support books they enjoy. Secondly, SA comic creators are given specific dates to aim for, which encourages them to keep on producing new work, which in turn leads to constantly improved comic books. Most importantly though, these events create an environment where comic creators can see the level of work produced by their peers and it encourages networking opportunities for future collaborative events or books.

The ease of digital printing and the ability to put one's work online ([bit.ly/cccomics](http://bit.ly/cccomics)) has been the other major factor that has enabled local comic

creators to gain a worldwide audience. Better technology and more devices such as iPads, smartphones and Kindles that can deliver books to the masses have largely leveled the playing field and removed one of the biggest barriers SA artists traditionally faced. With these distribution issues largely erased by providers like Comixology ([www.comixology.com](http://www.comixology.com)), SA artists are getting their work seen and noticed by a much broader audience.

**No-one can predict the future of SA comics though, but the possibilities are endless.**

Internationally SA comic creators are also getting noticed, with more locals breaking through and getting publishing deals with companies as diverse as Fantagraphics, DC Comics, Dynamite Entertainment and Heavy Metal ([bit.ly/SAcomics](http://bit.ly/SAcomics)).

## Going Big

What has become clear is that with the sheer variety of subject matter, genres, execution of art and stories, as well as the actual print and online formats, the ever-popular "What qualifies as South African comics?" will become a moot point. For lovers of good storytelling, this lack of homogenous and stereotypically "South African visual vernacular" is fantastic news. Ultimately it will create a breed of SA comic artist that isn't bound by conventions and history, but is an explorer that will focus less on reproducing the past and more on creating their own unique visions of the future.

A safe prediction would be that more SA comics will be produced every year and eventually SA will have a profitable and professional comic book industry. No-one can predict the future of SA comics though, but as far as I am concerned, the possibilities are endless. **ts**



# Know your Anime: Outlaws in Space

We take you on a journey into outer space with outlaws and bounty hunters aplenty. *Outlaw Star* and *Cowboy Bebop* – this is Science Fiction cowboy style!

## Outlaw Star Sunrise

*Outlaw Star* (*Seihō Bukyō Autorō Sutā*) is a Space Opera/ Space Western anime about a crew of bandits and misfits in search of a treasure trove called the Galactic Leyline. It opens with outlaw Gene Starwind and his 11-year old partner James 'Jim' Hawking running a sort of jack-of-all-trades business. They take on a bodyguard job for an outlaw pirate named Hilda and get involved in a skirmish with the Kei Pirates. Suddenly Gene and Jim find themselves owners of a ship, which they name *Outlaw Star*, and guardians of a cyborg-girl called Melfina.

Hilda then spills the beans about the real situation – the ship was built to seek the Galactic Leyline, a legendary place that holds countless treasure, knowledge and power. In this quest they also get the weirdest companions, like Suzuka a beautiful assassin in a Kimono, and Aisha Clanclan an alien cat-like girl.

*Outlaw Star* strikes a perfect balance between dramatic and comedic elements, with the likeable characters and their mannerisms the best part of the series. Luckily, the English dubbed version is wonderfully done, with the voice actors bringing life to each character. *Outlaw Star* is a classic from the 90s and if you are in the mood for a fun anime, it's a good choice.

**Also watch:** May we recommend *Angel Links* (a series set in the same universe), or *Trigun*.



## Cowboy Bebop Sunrise

A definite classic, *Cowboy Bebop* follows the adventures of a group of bounty hunters trying their best to survive from day to day. The crew consists of five very different people: Spike Spiegel, a retired and exiled hitman; Jet Black, an ex-officer of the Inter Solar System Police, retired thanks to the loss of his arm; Faye Valentine, a con artist suffering from amnesia due to the fact that she was in cryogenic hibernation for a long time; Edward, a preteen genius hacker girl; and Ein, a hyper intelligent, genetically-engineered dog.

*Cowboy Bebop* is addictive because over the course of the series the crew members each deal with unresolved issues from their past. It's easy to get captivated by the characters' storyline, further proof that character building in this anime is extremely impressive.

Visually, the style of animation has out-of-this-world realism and each movement is carried fluently from scene to scene by use of computer graphics that blends well with the background. The soundtrack is also one of the best we've ever heard, maybe because of Yoko Kanno, who also sang in *Ghost in the Shell – Stand Alone Complex* and *Wolf's Rain*.

Warning: This series might make you wish that it will never end and you might just end up binge-watching. No wonder it is one of the most respected and popular anime series from the 90s.

**Also watch:** *Cowboy Bebop: The Movie* or the series *Space Dandy*. **ts**

## About our contributor

Allen Simpson is a blogger and a published poet who has a deep passion for anime. He is also co-owner of AnimeFanatika ([www.animefanatika.co.za](http://www.animefanatika.co.za)), a reliable source of information on Anime providing fans with the latest news, reviews and goings on in the industry. Visit their website and become a Fanatik today. Sugoi!

# ElectronicsFG

ElectronicsFG is a retail store located in Faerie Glen Pretoria. We stock a large range of electronic components, kits, electronic instruments and gadgets. We cater to the needs of electronic engineers, technicians, electronic hobbyists, and students as well as school children.

## INSPECTION CAMERA WITH COLOUR LCD MONITOR



### Features

- ideal for checking hard-to-reach areas, e.g. behind walls, suspended ceilings, etc.
- 4 built-in white LEDs
- adjustable LED intensity
- video and picture recording
- records images on SD card (not incl.)
- comes with: 3 exchangeable top-pieces

magnetic top: to pick up small metal pieces  
hook: to retract wires or other small object  
mirror: to look behind corners or in shallow holes

**R2650.60**

## ARDUINO® UNO REV.3

### Features

- digital I/O pins: 14 (of which 6 provide PWM output)
- analogue input pins: 6
- contains: 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button



**R498.00**

## LED DESK LAMP WITH MAGNIFYING GLASS 3 + 12 DIOPTR 5W- 48 LEDS - WHITE

### Features

- 48 white LEDs
- on/off switch
- dioptr: 3 + 12
- table standard
- electronic ballast



**R569.30**

## USB-PC SCOPE + GENERATOR (2CH.) A COMPLETE USB-POWERED LAB-IN-A-BOX

### Features

- function generator
- oscilloscope
- transient recorder
- bode Plotter
- spectrum analyser



**R2395.30**

## ELECTRIC SOLDERING GUN "QUICK HOT" 30-130W / 220-240VAC

This soldering gun for fast heat application consists of stainless steel and is equipped with a dual-power ceramic heating element. The VTSG130N is a rugged-looking soldering device of exemplary quality. It saves energy and can replace every iron with a supply current from 30W to 130W. Ideal for standard soldering work.



**R99.20**

Atterbury Boulevard Shopping Centre, cnr Atterbury and Manitoba street, (Opposite KFC), Faerie Glen, Pretoria East | Tel: 012-3488-492 | Fax: 012-3488-497

**General Queries: Contact us by telephone or email, if you require more information:**  
Email: [electronicsfg@telkomsa.net](mailto:electronicsfg@telkomsa.net) | [www.electronicsfg.co.za](http://www.electronicsfg.co.za) | E&OE | While stocks last



## Which new flagship smartphone are you eyeing?

Samsung Galaxy S5

40%

HTC One M8

23%

Sony Xperia Z2

14%

I'll wait for the iPhone 6

14%

Other

9%



**Need your Tech fix faster? Join us now on:**

**Twitter:** @techsmartmag

**Facebook:** [facebook.com/techsmartmag](https://facebook.com/techsmartmag)

**To receive our newsletter:**

<http://techsmart.co.za/register>

**REGISTER NOW & ORDER ONLINE**

**FLYER LAB Hatfield**

Quality printing made easy

**x500 BUSINESS CARDS**  
Litho Print Full Colour 1 side **R220 incl.**

**x5000 A6 FLYERS**  
A6 Full Colour Front & Flyerlab Ad on Back **R825 incl.**

**FREE EXECUTIVE BUSINESS CARD HOLDER**

**FOR ANY BUSINESS CARD ORDER EXCEEDING R250**  
Offer valid until 31/06/14  
Until stock last

T&C apply

Check our website for more details and prices

**[www.flyerlabhatfield.co.za](http://www.flyerlabhatfield.co.za)**



# Multiple HD Streaming

Powerline adapters auto-connect and stream to multiple HD smart TVs throughout your home

Smart TV

Floor 2

Powerline 500

Smart TV

Floor 1

Scan for video

TPL-406E2K  
Powerline 500 AV Nano Adapter Kit

- Includes two TPL-406E adapters
- 500 Mbps networking from an electrical outlet
- Auto connect out of box

# TRENDNET®





**olivetti**

**086 100 5855**

Superb Uniwell Systems  
555 Mitchell Street  
(555 Charlotte Maxeke)  
Pretoria West 0183  
South Africa  
Tel: 012 327 5855  
Fax: 012 327 6275  
sales@superb.co.za  
www.superb.co.za

**smart POS**

**e-POS**

**GPOS**

**Uniwell**

**H.R.S**

**POS**

**olivetti**

**PurePOS**

**POS**

## IMPORTER & DISTRIBUTOR

Refurbished PC

**DELL** **IBM ThinkCentre**

IBM Lenovo SFF Desktop ... R983  
Dell Optiplex Gx520 ... R1395  
HP DC7700 SFF ... R1375  
HP Compaq Laptop ... R1994

Stock Photo only, your media may vary

**PurePOS**  
Driving Your Business Into The Future!  
HOSPITALITY / RETAIL



[www.superb.co.za](http://www.superb.co.za)

Dealers Countrywide

Franchise/Dealer Opportunity Available

- CASH REGISTERS - PC POINT OF SALE - SCANNING -  
TOUCH SCREEN - NETWORKING - SCALES - BAR CODING -

- CASH DRAWERS - SCANNERS - POLE DISPLAY -  
POS PRINTERS - RIBBONS - RENTALS -  
REPAIRS TO ALL MAKES OF CASH REGISTERS -



sales@superb.co.za

info@superb.co.za

### DEDICATED TO POS

- Focus specifically on the Hospitality, Retail & ...Catering
- Global distribution and support network
- Software development for PoS, Back Office & Head Office
- Systems integration with option of embedded or PC based systems
- Range of PoS terminals to suit various styles of operation & budgets

A versatile easy to use Software  
Total Stock  
Total Control  
Graphical Point of Sale  
Receipts Reservations  
Quick Search  
Intuitive Flexible Friendly User Interface  
Automatic Creation of Buttons  
(Department, PLL, etc)  
Robust Databases & Reporting  
Customization of Colours, Buttons etc  
Promotions e.g. Bucket Sale  
(Buy One Get One Free / 3 for 2) etc  
Multi-Level User Company/Shift/Line  
Allow use of Raffle and Points for Loyalty  
And more...



## Capture the unexpected in Full HD with a VicoVation car camera

**VICOVATION**  
SIMPLY LIVELY

Your travel companion  
and incident witness.

For security, evidence  
or just for fun!

From only **R1 799**  
Includes **FREE** delivery  
& SDHC card

TechSmart readers  
get **10% Discount**  
Coupon code  
**TECHSMART**  
Visit  
[dashcamera.co.za](http://dashcamera.co.za)





# EVETECH.CO.ZA

EVETECH PCs ARE EXCLUSIVELY POWERED BY **SanDisk**



## THE SA'S MOST AWARDED SYSTEM BUILDER!

Powered by **SanDisk**  
**128GB SSD**  
Solid State Drive Included



Customize & Buy Online!

**R8,999 Inc. VAT**

### i5 GTX 750 PRO Gamer

- Intel Core i5 4570 4x Core CPU
- MSI LGA1150 USB3.0 MB
- MSI GTX 750 1GB OVERCLOCKED
- 4GB 1866MHz RAM & 500w PSU
- Sandisk ULTRA-FAST 128GB SSD



Powered by **SanDisk**  
**128GB SSD**  
Solid State Drive Included



Customize & Buy Online!

**12,999 Inc. VAT**

### i7 270X Silent Gaming PC

- Intel Core i7 4771 8x Core CPU
- MSI LGA1150 USB3.0 MB
- MSI R9 270X 2GB 256bit OC
- 8GB 1866MHz RAM & 600w PSU
- Sandisk ULTRA-FAST 128GB SSD



## BUY FROM THE SA'S BEST!

### PERFORMANCE

With Evetech PCs you will get that kind of performance you expect for the price paid, performance that you lust for and deserve!

### TESTING

We subject each and every system that we build to a rigorous testing process & check that the system performs at the highest levels.

### OVERCLOCKING

Not surprisingly, there are not many companies who will provide overclocked computers, leave alone cover them with warranty.

Evetech PCs are exclusively powered by SANDISK SSDs  
The World's Best Selling & Most Award Winning  
Solid State Drives (SSD) Manufacturer.

**SanDisk**  
STORE YOUR WORLD IN OURS™



**EVETECH**  
YOU DREAM IT. WE BUILD IT.

  
We Deliver  
Nationwide

Tel: 010 786 0044  
Tel: 012 653 0033  
Cell: 079 466 6636

[www.evetech.co.za](http://www.evetech.co.za)  
[sales@evetech.co.za](mailto:sales@evetech.co.za)



# XBOX ONE vs PS4

By Pippa Tshabalala

Picture: Adriaan Louw from we-are-awesome.com

WHEN PIPPA STARTS  
COMPARING THE  
XBOX ONE WITH  
PLAYSTATION 4,  
ONE THING COMES TO MIND –  
**ONIONS.**

The questions I probably get asked the most in my line of work are, "What's your favourite game?" and "Xbox or PlayStation?" Of course because I enjoy being belligerent and watching the confused look of people who have never experienced the wonders of an alternate platform, I normally reply PC.

Let's take a step back however, and review this Xbox/PlayStation argument.

I deliberately use the full names, because I used to be asked this about the 360 and PS3, however with the advent of the Xbox One and the PS4, the answer is somewhat multi-layered. Like an onion. Or a parfait.

So let's start with the first layer. The Xbox One has not yet been released in South Africa. Yes, I have a PlayStation 4, so obviously I'm playing that at the moment because... the Xbox One is not out in South Africa!

No, I can't make a valid comparison between them yet, because even if I had imported one, our infrastructure is not yet quite ready to provide us with the full Xbox One experience. I'm as annoyed by the delay as the next person, but I'm not of a mind to import one prior to its release here. I have other things more pressing to spend my money on at this point.

Layer two. It's my *opinion* that PlayStation has probably won over many new buyers to their machine, primarily because of availability. If you're looking to buy a new gaming console, perhaps for your kids and you don't know much about them, the PS4 is right there in your face. It currently has no competition in that market.

**THE ANSWER IS SOMEWHAT MULTI-LAYERED. LIKE AN ONION. OR A PARFAIT.**

Layer three. If you're already a console gamer, particularly if you spend a large amount of time playing online, you've already invested a significant amount of time building up your friends list and your trophies/gamer score. It is unlikely (although I admit wholeheartedly it's not impossible), that many people who already have their profiles set up and gone through this process are likely to abandon all of that in order to switch consoles because the PS4 came out first. If they're PlayStation owners, they're likely to remain PlayStation owners. If they're Xbox owners, likewise they're likely to persist. Obviously if they own both (like myself) and have profiles set up on both, this argument doesn't really apply as it's also likely that at some point they'll buy both machines anyway.

Layer four. The Xbox One is probably going to be more expensive. Prepare yourselves for this fact. The international price difference between the Xbox One and PS4 was \$100, and the PS4 arrived in South Africa at a cost of more than R6 000. Although we currently have no price for the Xbox One, expect it to come in at quite significantly more expensive than that.

Xbox or Playstation? As I said, onions. But I think I can safely say at this stage it's still a waiting game for me. **ts**





# inFAMOUS SECOND SON



**Sucker Punch certainly lived up to its name, with the conclusion to the second game leaving us wondering where the studio could possibly take the franchise next, and whether we had seen the last of the inFamous world.**

The answer to those questions is a PS4 exclusive inFamous: Second Son, which in a word is super. inFamous: Second Son opens with an endearingly rebellious young man, Delsin Rowe, who you get the impression would love three hands, if only to be able to give the authorities three middle fingers. His foil is his brother Reggie, who just happens to be a law enforcement officer, and very much the complete opposite in personality.

Set five years after the events of the second game, conduits (those with superpowers) have been declared bioterrorists, and are routinely hunted and imprisoned by the brutal Department of Unified Protection (DUP). A car accident transporting conduits exposes Delsin to the first of his powers (smoke), making him, and his even more horrified brother, quickly aware that Delsin is a conduit himself and able to absorb the powers of others.

### Gleefully powerful

Delsin's bewilderment at his newfound powers quickly takes a more serious turn, when the DUP shows how brutal it can be and turns its wrath on Delsin's tribe. This leads Delsin and his brother to journey to Seattle, on a mission to rescue those afflicted.

Suffice to say, as Delsin grows into his default powers, his glee at what they enable him to do only grows, and thus, he becomes considerably less shy about using them to their fullest. The good news is that these are in fact a joy to use. From smoke dash, which enables one to pass through burning structures unharmed; the quick and useful smoke shot; cinder missile, useful for handling large groups of enemies or stronger foes; sulphur blast, that daze and confuse enemies; and the flashy Orbital Drop, which launches Delsin into the air and has him plummet down in a fiery spectacle of destruction.

### HIGHLY RECOMMENDED, AND YES, SECOND SON DOES JUSTIFY GETTING A PS4.

Much like the previous games, players can align themselves with either good or evil (good or bad karma) by their actions. For example, choosing to subdue defeated enemies or heal injured civilians will turn Delsin towards the positive, while draining enemies and going on a killing spree will do the opposite. Depending on the path you choose, different upgrades will then become available.

### Explorers welcome

Along with the open world nature of the game, where you can pretty much go anywhere and explore to your heart's content, there is also plenty to do, especially if you become a little obsessive compulsive about collecting shards (used to upgrade your powers) which you can do by destroying DUP mobile command centres, scanning zones and hunting down airborne tracker drones.

In a nutshell, the game looks and sounds terrific and plays just as beautifully, offering an even more refined inFamous experience that had us coming back time and again. Highly recommended, and yes, it does justify getting a PS4. RRP: R760 [RN] **ts**



# DARK SOULS II

## 3 Steps to Survival

Dark Souls 2 is not a regular RPG; rather, it's a game which challenges you every step of the way, and therein lies its allure.

The first time I died was for a silly reason – I misjudged my proximity to the edge of the cliff and took a gruesome plunge down. The next time, it was my curiosity that got me killed – I got a little too close to some vicious snarling thing in a cage, only to find out too late that its razer sharp claws could eviscerate me through the bars after all. Like its predecessors, Demon Souls and Dark Souls, From Software's Dark Souls 2 is that rare breed of game that gives no quarter and grants no mercy.

### Prepare to die (a lot)

While some may cogently argue that the Dark Souls 2 punishing dynamics have been built for masochists, to our mind, it is actually the ideal game for die-hard optimists; those who find the game's allure in the conviction that this time, they will learn from their mistakes; this time they will survive longer. Helping matters is that the world is beautifully realized, particularly thanks to the hauntingly good score.



From the outset, Dark Souls 2 shows exactly how forbidding and unforgiving this world is. You start off undead, and meet three crones (the Fates perhaps?) who share a private joke at your expense, while warning you against "going hollow" by losing all your Souls. It is Souls that are the all-important currency in this world; sorely needed in order to upgrade your skills. The rub is, that each time you die you lose the Souls you have collected, and some of your overall health as well – and with the only consolation being that these can be retrieved by finding and touching your bloodstain. Here are our tips to increase your chances of survival.

**FROM THE OUTSET,  
DARK SOULS 2 SHOWS EXACTLY HOW  
FORBIDDING AND UNFORGIVING THIS  
WORLD IS.**



### 1 Watch your step

It's not just the fantastic denizens of Drangleic that have it in for you. The landscape is as littered with traps as it is secrets, and the passes are easier to fall off than you may think. Thus, watch your step; and at least your first death will be something more entertaining and less embarrassing than simply finding out gravity kills.

### 2 Take it slow

In many role playing games cases, you kit yourself out and then boldly strike out into the wilderness to fulfil your quests. In Dark Souls 2, such an approach will see you perish faster than you can finish saying "WT..." Rather, advance cautiously; if you see a boss enemy ahead, back away, at least in the first few hours and come back at a later stage when you have levelled up a bit. Similarly, do take the time to explore the world, patient searching can and does result in finding precious Lifestones and Divine Blessings.

### 3 Underestimate nothing

Everything in Dark Souls 2 can, and will, if given half a chance, try to kill you, and in this case, our best advice would be to treat every denizen you come across with that top of mind. Along with this, we suggest you smash every crate/barrels you can find – it's pretty much the only thing in Drangleic that can't fight back and will boost your morale. Besides, the barrels had it coming.

For a tantalizingly unique gaming experience, we recommend it unhesitatingly. RRP: R700 [RN] **ts**



INTRODUCING  
the tech

# hipster

**DEEP FRIED MAN BELIEVES HE WAS A  
TECH HIPSTER BEFORE  
TECH HIPSTERS WERE EVEN A THING.**

This is my tech column. Every month I write about various forms of technology, things like smartphones and notebooks and computers and gaming consoles. This column is published on TechSmart, a site that focuses on the same forms of technology, as well as other cool tech such as cars, cameras, watches, headphones, GPS units and tablets.

Now, before you start screaming at the top of your lungs, "STOP STATING THE OBVIOUS, DEEP FRIED MAN!!!" thereby causing everyone in your open plan office to look up from their Excel spreadsheets and stare at you in open-mouthed shock, allow me to get to the point. This publication, as most others like it, only focuses on forms of technology that are fashionable and sexy.

Every day, in tech publications around the world, various forms of technology are marginalised. As I write this, innovations are being made, taking such complex machinery as combine harvesters, tractors, cultipackers and broadcast feeders to the next level. But no, just because the readers of this site aren't farmers these forms of technology are overlooked in favour of whatever bourgeois gadget is flavour of the month. People are making brave new strides in the development of hydraulic excavators, vibratory compactors and high-pressure mud pumps, but do those of us who aren't in construction even care? Hell

no. And don't even get me started on the lack of respect shown by tech journalists towards such oft overlooked forms of advanced educational technology as interactive whiteboards, online study tools and computerized adaptive testing.

**SOON I WILL HAVE INSPIRED A WHOLE ARMY OF TATTOOED, BEARDED TECH HIPSTERS TO GET TOGETHER AND DISCUSS THE MERITS OF THE LATEST THERMOACOUSTIC HEAT ENGINE.**

I have decided that this has to stop. For too long tech publications have focused on mainstream forms of technology. From now on, I will be TechSmart's resident technology hipster, writing columns about forms of technology that you, the reader, didn't even know existed. Next month, you can look forward to my column on rotogravures. You've probably never even heard of them. I want to be able to say that I wrote about amplitude modulation signalling systems before they were cool. I want to write about how you're not nearly on the pulse if you don't know about the latest developments in space lattice passive repeaters. I want to be the envy of all the other tech hipsters, which won't be easy since I am, so far, the only one that exists. You hear that? I was a tech hipster before being a tech hipster was even a thing.

It won't be that way for long, though. Soon I will have inspired a whole army of tattooed, bearded tech hipsters in flannel shirts to get together and discuss the merits of the latest thermoacoustic heat engine over craft beer. The best part is that you have me to summarise the latest innovations in obscure technologies right here in TechSmart every month. You have a lot to look forward to.

But sadly, for now, I must leave you. I need to check out the brand new programmable thermostat I just got sent for review. **ts**

Photo: GA Goodman

# XTOUCH

www.XtouchDevice.com

WAVE



Android 4.2 / Dual Core / Phone / Camera  
Video Player / GPS / Voice Memos / Supports SIM Card  
SMS / Email / Youtube / Facebook  
Twitter / Whatsapp / WeChat

XWATCH 02



Phone / SMS / Video / FM Radio  
Supports SIM Card / Bluetooth Earpiece  
Supports up to 32GB Micro SD Card

PF83



Android 4.2 / Phone Tab / 8 inch  
1024 \* 768 IPS Screen / Quad-core Cortex-A7, 1.2GHz  
1GB DDR / Storage: 8 GB / T-Flash(MAX 32GB)  
Sim Card - Supported / FM Radio / Panoramic camera  
HDR / Front Camera 2MP, Back Camera 5MP

QF72



Android 4.2.2 / Phone Tab / 7 inch  
1024 \* 600 Screen / Dual-core Cortex-A7, 1.3 GHz  
512 DDR / Storage: 8 GB / T-Flash(MAX 32GB)  
Dual Sim Cards / FM Radio / Bluetooth 4.0  
HDR / Front Camera 0.3MP, Back Camera 2MP

X2 Life



Android 4.2 / Quad - Core, Cortex-A7 1.3GHz  
5 inch IPS Screen, 854\*480 FWVGA  
Bluetooth 3.0 / Dual Sim  
Storage: 4GB, Memory: 512MB / Camera: 5MP rear, 0.3MP front  
Supports up to 32GB Micro SD Card

X3 mini



OCEAN



Android 4.2 / Dual - Core  
3.5 inch Screen, 320 \* 480 HVGA  
Dual Sim / Bluetooth 3.0  
Storage: 512MB +4GB TF Card  
Camera: 0.3MP rear, 0.3MP front  
Supports up to 32GB Micro SD Card

Android 4.2 / Dual - Core  
4 inch Screen, 800 \* 480 WVGA  
Bluetooth 4.0 / Dual Sim  
Storage: 4GB, Memory: 512MB  
Camera: 2MP rear, 0.3MP front  
Supports up to 32GB Micro SD Card



Siphwe Tshabalala

Born Smart

0860 XTOUCH



/xtouchsa



@xtouchsa

www.XtouchDevice.com



# MATRIX WAREHOUSE COMPUTERS

Shaping the Future of IT...

Computer Specials //



DVD  
WRITER

2GB  
MEMORY

500GB  
HDD

CELL  
THE POWER IS IN YOUR HANDS

Data Slim with 100MB  
of data for free once-off.  
T's and C's apply

FREE

ZORIN OS (LINUX)  
& OPEN OFFICE

ZIXAA **ROCKET PC**  **SAVE R200**  
INTEL CELERON G470 / H61 MOTHERBOARD / ZIXAA ATX CASE

**R2599**  FROM R136pm x 24 months  
Terms Available In Store

ZIXAA **MORPHEUS PC**  **SAVE R500**  
INTEL PENTIUM G2030 / H61 MOTHERBOARD / ATX CASE

**R2899**  FROM R150pm x 24 months  
Terms Available In Store

ZIXAA **TORNADO PC**  **SAVE R400**  
INTEL C I3 3240 / H61 Motherboard / ATX Case

**R3799**  FROM R198pm x 24 months  
Terms Available In Store

ZIXAA **HURRICANE PC**  **SAVE R200**  
INTEL C I5 3340 / H61 Motherboard / ATX Case

**R4799**  FROM R250pm x 24 months  
Terms Available In Store

ZIXAA **TYPHOON PC**  **SAVE R400**  
INTEL C I7 4770 / H81 Motherboard / ATX Case

**R6699**  FROM R349pm x 24 months  
Terms Available In Store



Zixaa Numeric Usb Keyboard

R 69

Zixaa all in 1 Card Reader

R 69

Zixaa Round Webcam

R 99

Zixaa 5 Mega Pixel Webcam

R 109

Coltech 2.5" Sata External Hard drive Enclosure

R 149

Easy DVD Maker

R 259

Coltech 3.5" Sata External Hard drive Enclosure

R 329



visit our website

[www.matrixwarehouse.co.za](http://www.matrixwarehouse.co.za) or contact 011 869 2613/4 for your nearest branch

# E TOUCH CLASSIER



## Aspire | S7 Ultrabook™

*Ultra-thin and light.  
Premium Gorilla Glass® design.  
Crystal-clear touchscreen.*

Explore the most stylish combination of high-end performance, brilliant WQHD touchscreen and award-winning design.

Get in touch with the Aspire S7 at [acer.co.za](http://acer.co.za) and 

Work easy. Play hard.  Windows 8

Some features require Windows 8.1. Update available through Windows Store. Internet access required; fees may apply.

