



Techno

MAGAZINE

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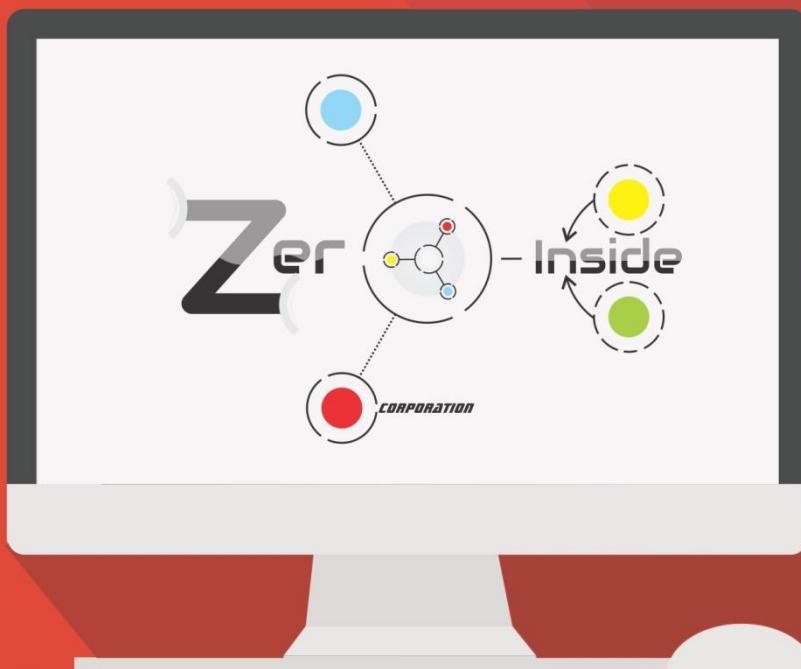


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Virtual Reality and Augmented Reality

Author : Hamzah



The future of mobile is tilting increasingly toward wearables, especially as augmented reality and virtual reality solutions hit the market. Long the objects of sci-fi fascination, the looming potential of AR and VR technologies lies in the enterprise with capabilities that could potentially reshape business processes, or fundamentally recast customer experiences. While the consumer world waits for the dominant AR and VR players to emerge, the enterprise can fast-track adoption—and begin the process of fundamentally reimagining how work gets done.

Until recently, augmented reality and virtual reality (AR and VR) technologies have served primarily as inspiration for fiction writers and Hollywood special-effects teams. Yet increasingly, both are finding more practical application in the enterprise. And while the hype surrounding each—particularly in the realms of entertainment and gaming—makes for good headlines, the real story in the coming months will likely be AR and VR's disruptive potential to recast long-standing business processes and tasks while opening a door to fundamentally new experiences.

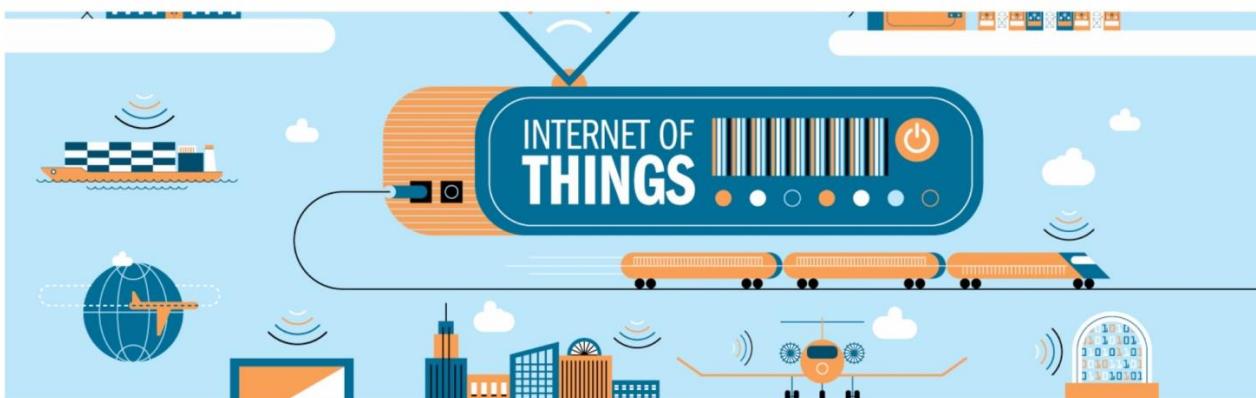
Already, the disruptive impact of AR and VR is being felt across consumer technologies as dozens of new products enter the market. More broadly, AR and VR are introducing new opportunities to transform the enterprise, particularly in the areas of communication and collaboration, training and simulation, and field and customer service, as well as in the reinvention of employee and customer experiences. Device costs continue to decline, standards are being defined, and app ecosystems are beginning to emerge. The combination of these influences—along with a spate of high-profile acquisitions that are shining klieg lights on AR and VR possibilities—may represent a tipping point for AR and VR's business and technical implications—and, more importantly, for how we rethink the role of the individual in the workplace.

The process of rethinking begins by understanding the affordance of new interfaces and interactions, and their impact on business process and legacy enterprise technology. Through this world view, the ways in which companies exchange data, execute tasks, share culture, and build the core of the business change dramatically.



Internet of Things: From sensing to doing

Author : Hamzah



Forward-thinking organizations are focusing their Internet of Things (IoT) initiatives less on underlying sensors, devices, and “smart” things and more on developing bold approaches for managing data, leveraging “brownfield” IoT infrastructure, and developing new business models. Meanwhile, others are developing human-impact IoT use cases for boosting food production, cutting carbon emissions, and transforming health services. Rapid prototyping can help determine the impact that IoT will have on businesses.

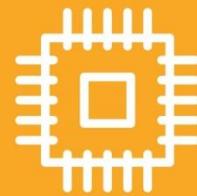
Like a wildfire racing across a dry prairie, the Internet of Things (IoT) is expanding rapidly and relentlessly. Vehicles, machine tools, street lights, wearables, wind turbines, and a seemingly infinite number of other devices are being embedded with software, sensors, and connectivity at a breakneck pace. Gartner, Inc. forecasts that 6.4 billion connected things will be in use worldwide in 2016, up 30 percent from 2015, and that the number will reach 20.8 billion by 2020. In 2016, 5.5 million new things will get connected to network infrastructure each day.¹

As IoT grows, so do the volumes of data it generates. By some estimates, connected devices will generate 507.5 zettabytes (ZB) of data per year (42.3 ZB per month) by 2019, up from 134.5 ZB per year (11.2 ZB per month) in 2014. (A zettabyte is 1 trillion gigabytes). Globally, the data created by IoT devices in 2019 will be 269 times greater than the data being transmitted to data centers from end-user devices and 49 times higher than total data center traffic.²

Sensing and sensibility

With so few detailed use cases, the sheer number of IoT possibilities makes it difficult to scope initiatives properly and achieve momentum. Many are finding that IoT cannot be the Internet of everything. As such, organizations are increasingly approaching IoT as the Internet of some things, purposefully bounded for deliberate intent and outcomes, and focused on specific, actionable business processes, functions, and domains.

Hardware Review



Performance To Power Amazing Experience

Author : Iqbal Basyar

Experience a whole new way to interact with your PC like never before. With the power to understand your motions, recognize your face and respond to your voice, 5th generation(Broadwell-H) Intel Core processors takes computing to the next level.

Pioneer in Gaming, 1st Mechanical Backlit Keyboard on Notebook

Designed to fulfill user's satisfaction, the 1st mechanical backlit keyboard on notebook has born together with Titan. Packed with the cutting-edge technology and features like Lighting Control, Macro Keys Editing and perfect finger touch feeling, it will lead the gamers to every epic wins!



Hear beyond the limits, Nahimic Sound Technology now packed in MSI Gaming Notebooks

To lead the gaming market, MSI is adopting Nahimic sound technology to boost the audio performance for their new range of gaming computers. So what's new about this? Now, they can offer immersive virtual 7.1 sound in high definition using exclusive stereo equipment

VIRTUAL SURROUND **VOICE LEVELER** **BASS BOOST** **NOISE GATE & REDUCTION**



CPU : Latest 5th Gen. Intel® Core™ i7 5950HQ / 5700HQ processor

OS : Windows 10 Home/Windows 10 Pro

Chipset : Intel HM87

Memory : DDR3L, up to 1600 MHz, slot *4, max 32GB

Display : 18.4" WLED FHD (1920 x 1080) Anti-Glare Display

Graphics : GeForce GTX 980M SLI

Graphics VRAM : GDDR5 8GB

Storage : Up to 1024GB Super RAID 3 + 1TB HDD 7200rpm

Optical Drive: BD Writer / DVD Super Multi

Audio : - 4+1 Speaker System

- 2 speakers for each channel Exclusive Audio Boost 2 technology

- Nahimic sound technology



Webcam : Full FHD type (30fps@1080p)

Card Reader : SD (XC/HC)

LAN : Killer DoubleShot Pro Gb

LAN Wireless : LAN Killer DoubleShot Pro 11ac

Bluetooth : Bluetooth v4.1

HDMI : 1(v1.4)

USB 3.0 port : 5

Mini-DisplayPort : 2(v1.2)

Mic-in/Headphone-out : 1/1

SPDIF-Out : 1

Keyboard : Single-color backlight (Red) SteelSeries keyboard

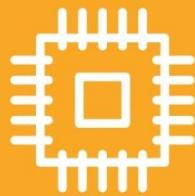
AC Adapter: 330W

Battery : 8-Cell

Dimension : 45.6 x 33 x 4.9 cm

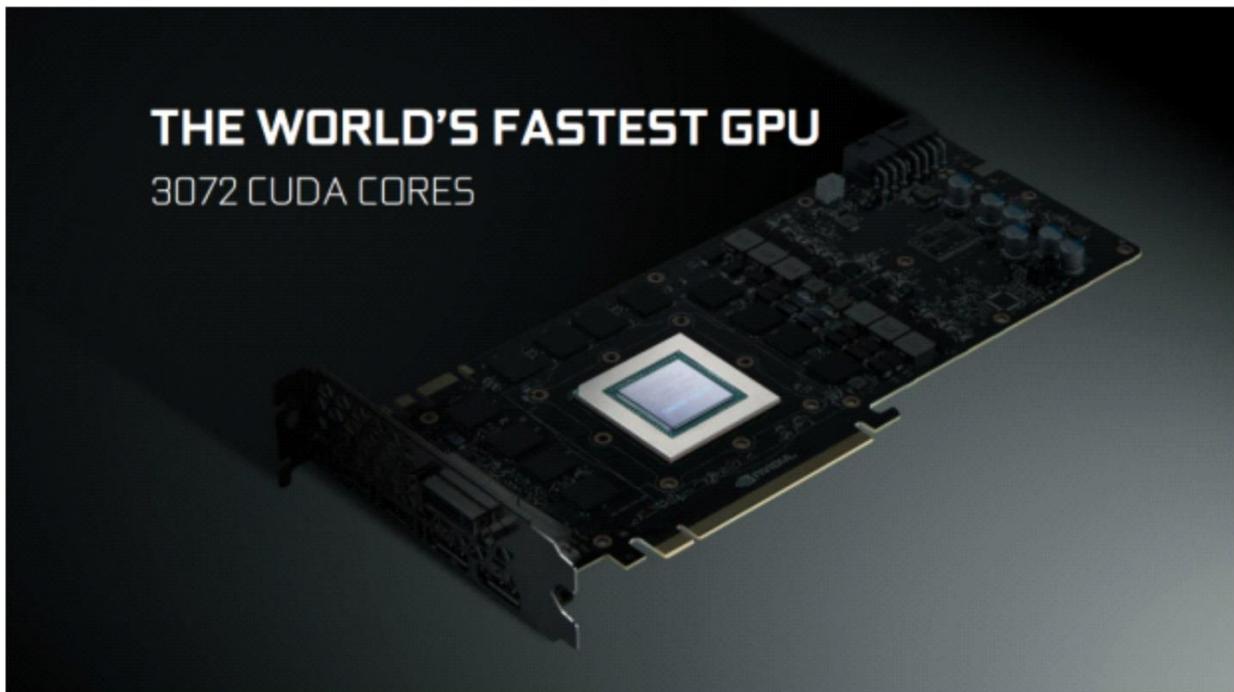
Weight (KG) : 4.5Kg (w/ Battery)

Hardware Review



GeForce GTX 980 Ti

Author : Iqbal Basyar



As we reported a few weeks back, NVIDIA is working on a new Maxwell graphics card, the GeForce GTX 980 Ti. Some new info on the card has arrived today via the website Videocardz.

The website claims to have heard from a reliable source that the GTX 980 Ti card will come with half the memory capacity of the GeForce GTX Titan X at 6GB. However, both the cards are said to share the very same board model and could share the same reference cooler as well.

Unlike the GeForce GTX Titan X, the GTX 980 Ti is believed to come with a variety of cooler options such as reference, custom air-cooled, watercooled and hybrids. The report sheds light on the card's display output options as well. The card will allegedly offer a total of five display outputs: 3 DisplayPorts, 1 HDMI, and 1 DVI-I, exactly similar to the GTX Titan X.

The rest of the specs of the card are still unknown, although Videocardz did confirm that the GTX 980 Ti will use the GM200-310 GPU, perhaps a less powerful variant of the GM200-400 GPU used on the GTX Titan X.

GeForce GTX TITAN X is the ultimate graphics card. It combines the latest technologies and performance of the new NVIDIA Maxwell™ architecture to be the fastest, most advanced graphics card on the planet.



Car Tutorial

Tips : How to Choose Best Automatic Transmission

Author : Mochammad Farell

Nowadays, many people use car as a transportation from home to work. But, the problem is traffic jams. At the office time, people go to their work at the same time. This can make the bad traffic jams. Because of traffic jams, people sell their old car to buy new car which have automatic transmission. Automatic transmission has many types and different systems, the effect is comfortability, responsivisity and efficiency of car.

First, the transmission is conventional transmission. In this transmission there are some components to make the engine work. The first component is torque converters. If you drive car which has manual transmission before, you must thread the clutch first to change gear. Torque converters have same functions with the clutch. So you don't need clutch to shift the gear. The second component is planetary gear set. This component manage the first gear to last gear automatically, so you don't need shift the gear manually. You have just put the gear into 'D'. The last is hydraulic control unit (HCU). If you drive car which has manual transmission before, at the first time you learn, You must be once time, release the clutch pedal quickly and this is make the engine shut down.

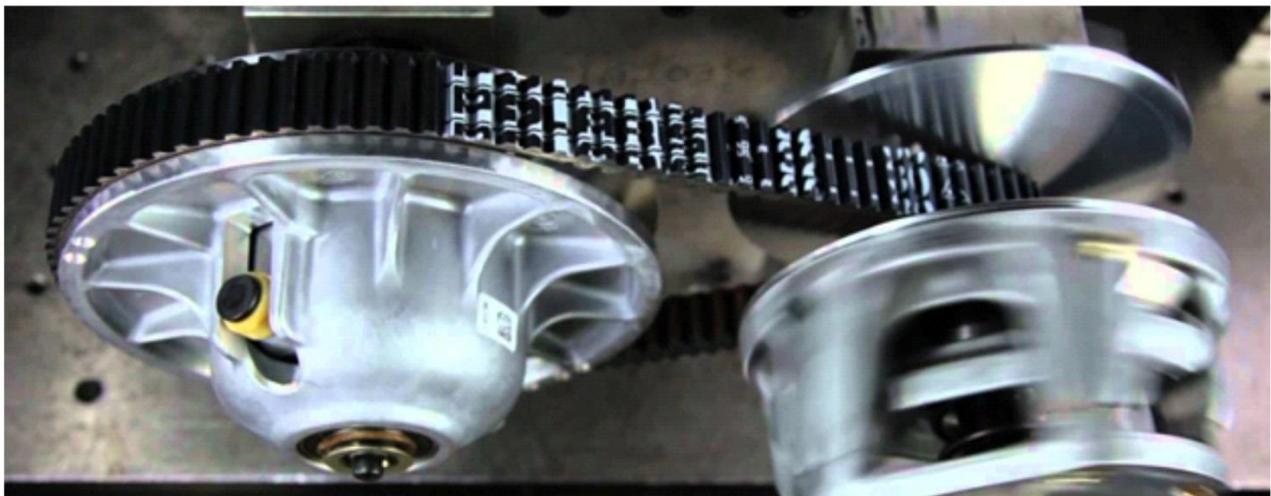
The HCU manage this clutch so you don't have to make the engine shutdown. The goodness of this transmission is the good responsivisity, have good durability, and this transmission component is not too expensive. The badness of this transmission is its comfortability. The shifting gear doing by its engine is feeling by driver and the passengers.

Second, the transmission is continuously variable transmission (CVT). This transmission is simple. The component is only pull and steel belt. The pull is the component which is connected by steel belt. The steel belt distributes engine power to wheel mover. CVT system is similiar to which is used by bike. The goodness of this transmission is good comfortability and efficiently. The badness of this transmission is its responsivisity. Usually, there is 1 second delay for power distributed to its wheel mover. This is reason why Indonesian people don't like CVT transmission, Especially when it is used in district street like Nagrek and Pantura. There are trucks use these streets to distribute their stuff. Cars behind the truck need good responsivisity to outstrip the truck.

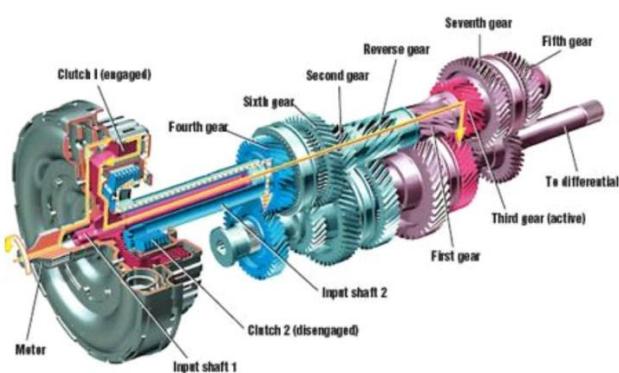




Car Tutorial



Last, the transmission is dual clutch transmission (DCT). This transmission is similar to conventional transmission. The difference between the DCT and conventional transmission is amount of clutch use. Assuming the transmission has six gears. The DCT has six clutches too to shift the gears. The working system of DCT is when the engine is on first gear, the second gear is standby to change shifting from first gear to second gear. When the engine is on second gear, the third gear is standby to change shifting from second gear to third gear and the first gear is standby if the car is decelerate and need to downshift to first gear, and so on. The DCT is used by sportcars like Lamborghini, Ferrari and Pagani. In Indonesia there are only few cars use this transmission. The goodness of this transmission are comfortability, fast shifting, efficiently and good responsivity. The badness of this transmission are, First, if one clutch is damaged, the rest of the clutch must be demolished and this will take a long time to repair. Even the professional mechanic need hours to fix this problem. Second, The components price are expensive.



The conclusion is you can choose many different types of automatic transmission. You choose depend on what you need. If you need durability and low cost, choose the conventional transmission. If you need efficiently and you don't like to drive aggressively, choose the CVT. If you need both goodness of Conventional transmission and CVT, choose dual clutch transmission.



Honda Civic Back to Its Real Identity ?

Author : Mochammad Farell

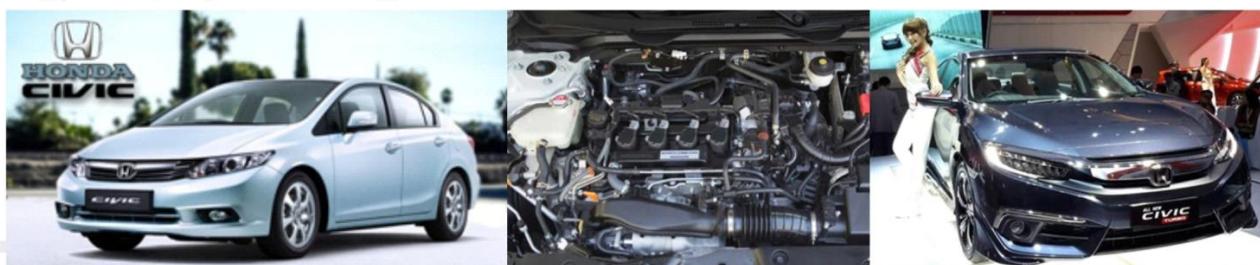
Last month, IIMS 2016 was held in JIExpo Kemayoran Jakarta. Many new cars are shown in this event. Not just new cars, the classic cars were also shown in this event.

In this IIMS 2016 the people surrounded Honda booth and they like new car which showed in this event, it is Honda Civic Turbo 2016. After period years of 2012 - 2016 many customer disappointed about the new Civic, the civic is Gen9. Civic Gen9 is not more fun to drive than its old brother Civic Gen8. Many car enthusiast or what we call petrolhead commented that the handling of its car is not so responsive than Gen8 and its exterior is not as good as Gen8. The Civic Gen1 until Gen8 is called legend because of its Handling, fun to drive and nice exterior.



From IIMS 2016 many petrolheads are sure that Civic Gen10 can bring the 'legend' back. It's because of its new features in this car. In the exterior we can see that the headlamps are so beautiful, the design of its headlamp seems like Acura NSX. The main reason why the Civic Gen10 is mentioned as back to the 'legend' is because of its engine.

First, the engine is upgrade to Earth Dreams which can make the car is more efficient for consuming oil. Secondly, the engine is using turbo, which make the power and torque of engine increase to 174 Horsepower (Hp) and 220 Nm torque. The Horsepower and torque do not need the big capacity engine, the engine capacity is only 1.498 cc. Comparing to big car, Toyota Fortuner, has the power only 150 Hp and Fortuner weight is more than 2 ton. The Civic weight is less than 2 ton and its have the big power, so you can imagine how fast is the new Civic.



The little problem is only in its transmission, it's use CVT. CVT is transmission system which uses pulley and steel belt. This system is familiar to transmission which is used by motorcycle. The efficiency of engine use CVT transmission is good, but for the responsiveness is not too good. Usually, when you kickdown the gas pedal there will be a delay from the engine to wheel mover for about 1 or more second. But, I hope the CVT transmission is good and there is no the excess delay.



What is Drone ?

Author : Satrya Budi Pratama

Drones are more formally known as unmanned aerial vehicles (UAV). Essentially, a drone is a flying robot. The aircraft may be remotely controlled or can fly autonomously through software-controlled flight plans in their embedded systems working in conjunction with GPS. UAVs have most often been associated with the military but they are also used for search and rescue, surveillance, traffic monitoring, weather monitoring and firefighting, among other things.



More recently, the unmanned aircraft have come into consideration for a number of commercial applications. In late 2013, Amazon announced a plan to use drones for delivery in the not-too-distant future. Personal drones are also becoming increasingly popular, often for drone-based photography.

Other applications include drone surveillance and drone journalism, because the unmanned flying vehicles can often access locations that would be impossible for a human to get to.



In late 2012 Chris Anderson, Editor-In-Chief of Wired magazine, retired to dedicate himself to his personal drones company, 3D Robotics. Personal drones are currently a hobbyist's item most often used for aerial photography, but the market and potential applications are both expected to expand rapidly.



Mind-Controlled Drones Show Off Latest in Brain Tech

Author : Satrya Budi Pratama

Wearing black headsets with tentacle-like sensors stretched over their foreheads, the competitors stare at cubes floating on computer screens as their small white drones prepare for takeoff.

"Three, two, one ... go!" the announcer hollers, and as the racers fix their thoughts on pushing the cubes, the drones suddenly whir, rise and buzz through the air. Some struggle to move even a few feet, while others zip confidently across the finish line.

Brain Ware Detection

Scientists have been able to detect brainwaves for more than a century, and mind-controlled technology already is helping paralyzed people move limbs or robotic prosthetics. But now the technology is becoming widely accessible. Emotiv and NeuroSky are among startups offering electroencephalogram headsets for purchase online for several hundred dollars. The models Florida racers used cost about \$500 US each.



Here's how the technology delivers an abstract thought through the digital realm and into the real world: Each EEG headset is calibrated to identify the electrical activity associated with particular thoughts in each wearer's brain — recording, for example, where neurons fire when the wearer imagines pushing a chair across the floor. Programmers write code to translate these "imaginary motion" signals into commands that computers send to the drones.

Ethical concerns

So far, BCI research has largely been about helping disabled people regain freedom of movement. Recently, an Ohio man using only his thoughts was able to move his paralyzed hand thanks to a chip implanted in his brain. In Miami, doctors using BCI are helping a 19-year-old man stand on his own after losing the use of his legs in a motorcycle accident.

But as the technology moves toward wider adoption, ethical, legal and privacy questions remain unresolved.

The U.S. Defence Department — which uses drones to kill suspected militants in the Middle East from vast distances — is looking for military brain-control applications. A 2014 Defence Department grant supports the Unmanned Systems Laboratory at the University of Texas, San Antonio, where researchers have developed a system enabling a single person with no prior training to fly multiple drones simultaneously through



Software Review

Adobe Photoshop

Author : Tri Muryani



Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems for Windows and OS X. Photoshop was invented in 1988 by Thomas and John Knoll. Featureset Photoshop Photoshop can be extended with plug-ins. Plug-ins allow users to eliminate the noise without the side effects of over-sharpening, add grain, and even perform post-crop vignetting.

File Format

Photoshop files have default file extension such as .PSD, which stands for "Photoshop Document". A PSD file has a maximum height and width of 30,000 pixels, and length limit of 2 Gigabytes. The main strength of Photoshop is a pixel-based image editor, unlike a vector-based image editor. Photoshop also allows editing vector graphics through its Path, Pen tool, the tool Shape, Shape Layers, Type tool, Import command, and the function of the Smart Object.

Tools

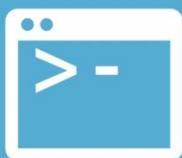
A tool in photoshop, among others:

Pen Tool

Photoshop includes a few versions of the pen tool. Pen tool creates precise paths that can be manipulated using anchor points.

Shape tool

Photoshop provides an array of shape tools including rectangles, rounded rectangles, ellipses, polygons and lines. These shapes can be manipulated by the pen tool, direct selection tool etc to make vector graphics.



Software Review

Skype: Video , Chat, and Voice Call Services

Author : Tri Muryani



Skype is an application that provides video chat and voice call services. Users may exchange such digital documents as images, text, video, etc., and may transmit both text and video messages. Skype allows the creation of video conference calls. Skype is available for Microsoft Windows, Macintosh, or Linux, as well as Android, Blackberry, and both Apple and Windows smartphones and tablets.

First released in August 2003, Skype was created by the Swedish Niklas Zennström and Janus Friis of Denmark, in cooperation with Ahti Heinla, Priit Kasesalu, and Jaan Tallinn, Estonia is developed a backend that is also in the music sharing application Kazaa. Skype allows users to communicate over the Internet by voice using a microphone, by video using by using webcam, as well as with instant messaging. Skype-to-Skype calls to other users are free of charge, while calls to landline and mobile phones are charged via a debit-based user account system called Skype Credit. Skype has been powered entirely by Microsoft operated supernodes since May 2012.

Features

Registered users of Skype are identified by a unique Skype Name and may be listed in the Skype directory. Skype allows these registered users to communicate through both instant messaging and voice chat. Voice chat allows telephone calls between pairs of users and conference calling and uses a proprietary audio codec. Skype text chat client allows group chats, emoticons, storing chat history, and editing of previous messages. Offline messages were implemented in the beta of version 5 but removed after a few weeks without notice. The usual features familiar to instant messaging users-user profiles, online status indicators, and so on are also included. Skype supports conference calls, video chats and screen sharing between 25 people at a time for free.

Smart Phone



Next iPhone Confirmed with OLED Panel

Author : Chiara Janetra



Apple will finally switch to OLED display for the next iPhone but not in time for the iPhone 7 release date this 2016. Korean media reports said that the tech giant has tapped Samsung to supply OLED panels starting in 2017, indicating that it is the iPhone 7S that will first get taste of the display technology.

MacRumors reported, citing The Korea Herald as source, that OLED display will become part of the iPhone supply chain in 2017 as part of the \$2.59 billion deal between Apple and Samsung. Specifically, 100 million units of OLED panels will be shipped over the next three years involving the 5.5-inch screen size, which hints that only the bigger iPhone 7S Plus will get the upgrade.

The jump to OLED could also mean that the upcoming iPhones will sport all-screen front panel and slimmer build as opposed to traditional LCD due to the elimination of backlighting. OLED will also deliver crisper image and true color rendering to the next iPhone although MacRumors noted that there are expected downsides - high production cost and the likelihood of shorter lifespan.

BGR, however, has reported that these issues appear to have been or in the process of being resolved. Before the purported move to OLED, Apple has started work on a display technology to develop a variant of organic light-emitting diode that will be of vast improvements - thinner and likely more durable.

Meanwhile, it should be noted that the 5.5-inch OLED display that Samsung will provide to Apple starting next year runs in counter with an earlier prediction aired by Ming-chi Kuo. The well-known Apple watcher has recently said in adopting OLED, the iPhone maker will go for the larger 5.8-inch that presumably will be called the iPhone Pro.

The Kuo report plus the latest development douse cold water on hopes that the iPhone upgrades this 2016 will include the same display technology that won raves for Samsung's Galaxy S7 and S7 Edge. The iPhone 7 and 7 Plus on September release date may be lacking OLED display but will rock with fresh design and build, A10 processing chip and iOS 10 as banner feature upgrades.

Smart Phone



Samsung Galaxy Note Vs Xiaomi MI 5

Author : Chiara Janetra



Samsung Galaxy Note 5 has many incredible features to beat HTC One A9, and now the smartphone faces off Xiaomi Mi 5.

Xiaomi Mi 5 is not easy to lay hands on since the manufacturer revealed that its smartphone does not support the United States LTE bands, according to Techno Buffalo. However, the phone is compelling, particularly when it comes to pricing.

At a price of between \$300 and \$400, fans can get a phone that sports a Snapdragon 820 SoC, fingerprint scanner, 4GB of RAM, and 3000mAh battery. Other flagships with the same specs cost almost twice, and therefore, it is easy to see why Xiaomi Mi5 is gaining popularity among clients.

On the other hand, the Galaxy Note 5 is no slouch either, even though the flagship is halfway through the product cycle and fans should expect to see the smartphone's usual revamp in fall. The Galaxy Note 5 has many great features, including a big and bright display, faster processor, fantastic camera, and the stylus for enthusiasts.

It is important to note that there were complaints with regard to the pen being inserted wrongly, making the S Pen useless. All said, the Note 5 is a great device. According to a different report by the same publication, the Note series normally pushes the limits in many ways, especially with its new screen technology, powerful camera sensors, fingerprint scanners, VR, or new S Pen technology.

The new technology is an example of Samsung's best foot forward in the mobile sphere. This year's Samsung Galaxy Note 5 is probably the best flagship that customers should go for amid some shortcomings.

In many ways, the Xiaomi Mi 5 has much to compare with the latest Android flagships from Samsung and LG. Besides the aforementioned features, the smartphone sports a 16MP camera with optical image stabilization, 128GB storage capacity, and runs on Android Marshmallow 6.0. While Xiaomi Mi 5 display falls short of the competition when it comes to the 5.15-inch 1080p LCD panel, the manufacturer had to cut somewhere to reduce on costs.