



ELECTROTRENDS

Issue III

**Dept. of Electrical
Engineering**

VIVA INSTITUTE OF TECHNOLOGY

WhAT's NEw!

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The camera can record videos without internet, requires internet connection after switching camera on - after that you can disconnect & recording will continue. But You need to keep camera connected to a power source for 24 hours. Multiple users can watch camera recording at same time. User has to manually adjust camera for various applications.

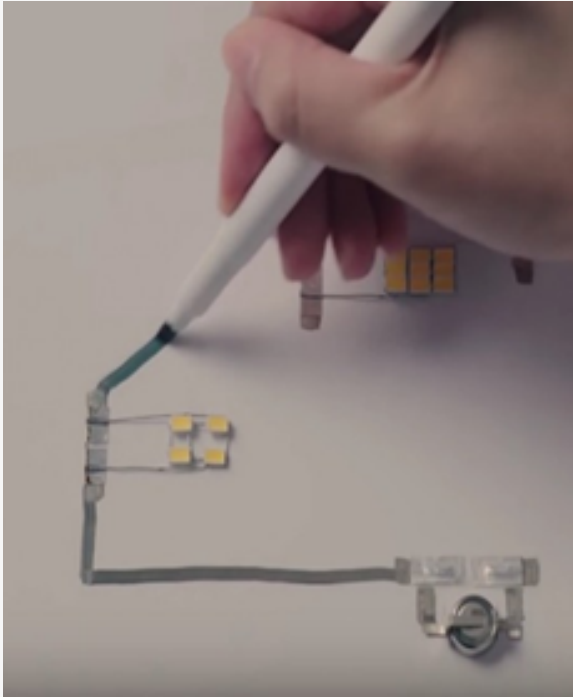


360° SECURITY CAMERA

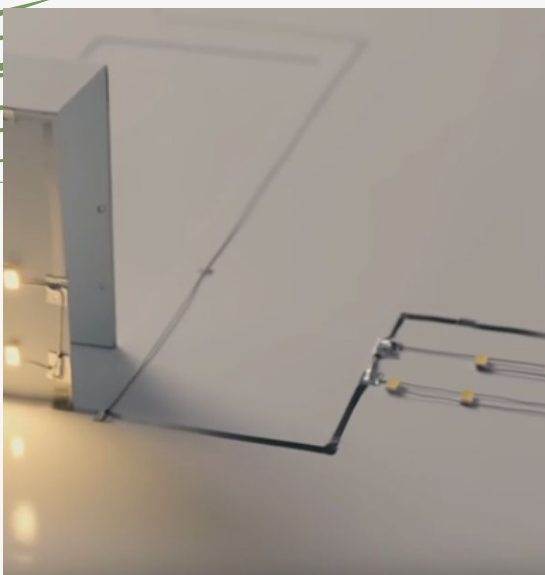
The Mi Camera 360° has perfect picture quality. With Mi Camera's 20 megapixels, 1080p resolution and wide dynamic range, even distant backgrounds are clear and detailed with Talkback Feature and infrared night vision, upto 64GB SD card storage and 1080p HD recording. It can be used for night mode recording with 1080p HD recording quality.



Mi Home Security Camera 360° has a clean and attractive design, and looks almost like a toy. You can choose to record videos in HD or Low quality. The camera has a sleep mode that lets users shut it down without having to disconnect it. Currently going for Rs. 2,699 from the official Xiaomi online store and Amazon Indi, the Mi Home Security Camera 360° offers excellent value for money.

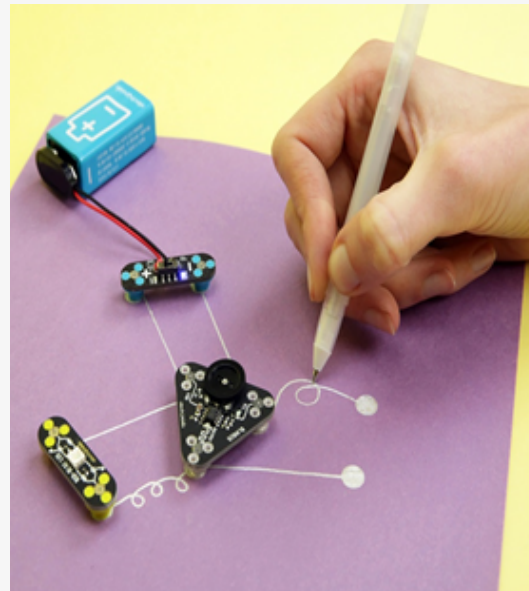


The Silver pen uses a spot of ink made up of silver conducted Nano-particles. We can use this pen for drawing electrical circuits on special paper. It connects between the battery sources and led which acts as output. The silver metal makes the ink more conductive than the carbon-based inks. The pathways drawn using this pen maintains their conductivity through multiple folds of paper and bends.



SILVER PEN FOR ELECTRICAL DRAWING

Are you an Electrical Engineer by profession? Yes? That's awesome because I have a cool thing for you to tinker with. Conductive Ink Pens have taken the world by a storm. The pen is like an ordinary pen but uses a particular type of special ink called the Conductive ink and conducts electricity.



Professors Jennifer Bernhard & Jennifer Lewis at University of Illinois have invented the silver pen which can draw circuits. The pen enabling user to personally fabricate low-cost, flexible & disposable electronic devices. The research is now expanded to change the palette of inks which enables pen-on-paper writing of other electronic and ironically conductive materials.

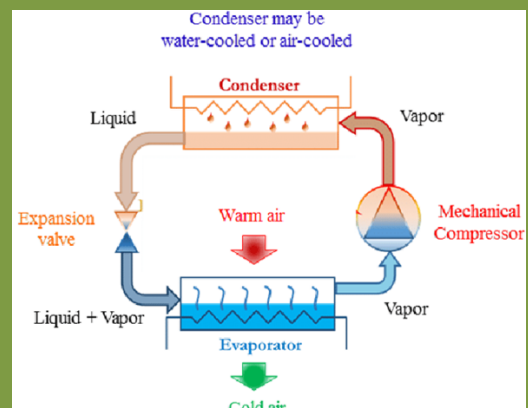
DELIVERY DRONE

Drones. Love 'em or hate 'em, they're here to stay



Amazon has unveiled the latest version of its Prime Air delivery drone, a hybrid aircraft that's capable of vertical takeoff and landing as well as sustained forward flight. The new drone uses a combination of thermal cameras, depth cameras, and sonar to detect hazards. With the help of machine learning models, on board computers can automatically identify obstacles and navigate around them. The drone's rotors are also fully covered for safety, with these covers serving as wings during sustained flight. The drone has six degrees of freedom which Amazon says allows for more dynamic and nimble flight. A tilting design allows for the drone to use the same six propellers to fly forward as it does for take off and landing. Packages for delivery are then carried in the fuselage in the middle.

MAGNETOCALORIC REFRIGERATION



The technology uses no refrigerant or compressor and is 20% more efficient than what is used today. The system uses a water-based fluid rather than a chemical refrigerant such as Freon to transfer heat from inside the refrigerator and achieve the cooling process. Instead of a compressor, magnets are used to create a magnetic field that agitates particles in the fluid causing it to cool. The strength of the magnetic fields determines how cold the fluid becomes, and in turn, how quickly it cools the refrigerator.

GOOGLE HOME

Google is everywhere and now google wants to be in our home too. The voice activated connected smart speakers almost looks like air freshener. We can play multiple home units and simultaneously work on other things. The speaker is surprising very loud and can control other home gadgets like thermostat, lights etc with just your voice. The most exciting thing that distinguishes it from Amazon Echo is you can ask all things that we generally ask on google and get similar answers. Most awesome thing is it remembers your questions and sets your choice pattern.



The Google Home is a nifty little speaker that harnesses the power of the Google Assistant to play music, respond to all sorts of questions, stream movies and TV shows across to televisions, control smart home devices, and even tell jokes in a pinch.



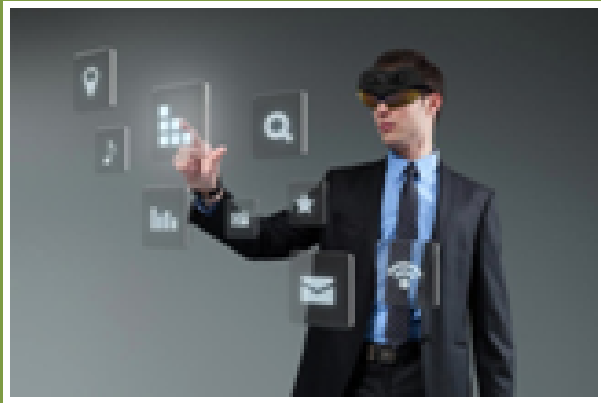
Google Home is a great futuristic alternative to a vanilla Bluetooth speaker that could make your life a little more convenient - at the expense of sound quality. While most of the Google Home functions can be achieved by the Google Assistant on a smartphone, a large part of the appeal of the Google Home lies in the fact that it lacks a screen.

SALGROMATIC AEROSOL

Fire is always dangerous regardless the type or location and smoke as well as fire-fighting causes always damage. Sometimes fire damage may be small where only a single device is destroyed, but in a worst case, the fire can cost lives and destroy the entire company's business. Modern Salgromatic Aerosol fire protection solutions are the easiest and the most contemporary way to prevent the hazards and damages described above and they enable the individual optimization of fire technical corporate security and business assurance, as well as fire-risk management effectively, effortlessly, at reasonable cost and precisely where they are located. With Salgromatic Aerosol fire suppression system the fire is extinguished within a seconds, which means less damage, lower repair costs, more time to rescue as well as shorter periods of downtime and operation interruptions, while securing your business image.



AIR TOUCH TECHNOLOGY



Remember when Tony Stark in Iron Man interacts with crazy futuristic hologram interface!

That's what i-touch is going to do which will allow users hand to be free of any device. There will be just a floating screen ready for input. All you have to do is wear a special glass similar to your sunglasses. A Taiwanese technology company ITRI has developed the ultimate in hands-free technology: a virtual, see-through touch screen or keyboard display that, when "touched" in mid-air by the user's finger, transmits that signal directly to the computer or mobile device. Physical contact with a touch pad or keyboard is not required for typing or transmitting commands. ITRI is trying something new with hi-tech prototype glasses.

The key elements for this technology are special eyeglasses, an internal DDDR (defined distance with defined range) camera, and an air-touch interface. When linked together, these components allow users to interact with a virtual input device that can be changed at any time from a simple keypad to a keyboard or a touch screen. The eyeglasses are required to actuate the keys on the virtual input device. They are equipped with miniature displays that can be seen with two eyes or just one eye. The glasses allow the user to see the surrounding environment while also displaying data, images, and input devices.



TEMPERATURE CONTROL MUG

Do you have an EMBER MUG? Welcome to the world where you can have hot coffee all day! There is a electric charging coaster that you need to plugin and set the mug on to charge. There is a standard indicator that tells you when your mug needs charging and when its charged. The hidden display tells you the current temperature of the mug and battery level. You can change the temperature by twisting the bottom of the mug. It's a hi-tech way to enjoy world's oldest and simplest pleasures.



The advertisement features a white Ember Mug filled with coffee on a white saucer, set against a blurred background. Three key features are highlighted with icons and text:

- Keep your drink hot**: Set your preferred drinking temperature. Start with 135°F and adjust from there.
- Safe to hand wash**: Ember Mug is IPX7 rated and fully submersible up to 1 meter deep.
- Enjoy 1 hour battery life***: Or keep the Ember Mug on the included charging coaster for all day use.

*Visit ember.com/battery for more



AUDIO SUNGLASS

Help our community combat animal overpopulation. Get your pets neutered or spayed for free when you avail our grooming packages. Bose debuted an audio gadget this year that combined two things, cool sunglasses and wireless earbuds. The frames will themselves play the music streamed from your phone via bluetooth exclusively for your ears which Audio sunglasses no one else can hear.



PORTABLE MICROMOTOR

A very small, lightweight and flexible. There is a control box and a hand piece. The lithium ion battery is recharged in 2.5 hrs. The speed control, forward and reverse button are on the control box. Micromotor with pocket size control has Li-ion rechargeable battery for the ultimate in portability. Variable speed up to 30,000 RPM. Handpiece comes with either 2.35mm (3/32") or 1/8" collet. Universal Voltage - specify power cord for where you will use the tool.



AMBASSADOR TRANSLATOR

Many of us have the misfortune of being cursed with monolingualism. Blame the public school system in America. But for those who want to travel regardless of language boundaries—or easily converse with people who speak different languages in their own neighborhood—Waverly Labs invented an audio device that translates on the spot. There are many situations in which to use it, but perhaps the most useful setup is to attach one to your ear, hand the other to someone who doesn't speak the same language to strap onto their own head, and talk away. The correct translation will play in both of your ears. The technology is still in the Indiegogo stage, but it might be worth it to you to get your hands on an early version.

EDITORIAL

**Happy makers of Electrotrend
Magazine Advisor—Mr. Bhushan Save
Magazine editor—Mrs. Piyali Mondal**

**In the new issue of Electrotrends we have covered the updated
, handy and most talked about Electrical/Electronics gadget
that will make life easier**

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