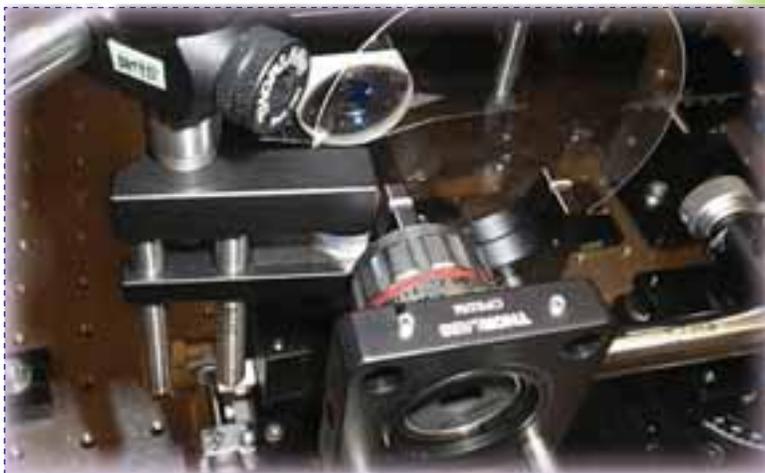




OM/ONE FLOATING SPEAKER

The Om/One is the world's first Bluetooth speaker system which floats in mid air. The device comprises a tennis ball-sized 'orb' speaker that can float about an inch above a base thanks to an electromagnet. A 3 watt speaker can produce 110 db output. This enhanced audio experience is because of the fact that it does not come in contact with any solid surface and thereby experiences no low-end loss. It also features a rechargeable lithium ion battery capable of up to 15 hours of continuous play at 70 percent volume. It includes a microphone so it can be used to conduct phone conversations as well. This wireless speaker can connect to devices like smart phones, notebooks and computers via a Bluetooth with a range of 33ft (10meters). It will be available in black, white and disco ball. (www.gizmag.com)



WORLD'S FASTEST CAMERA

A camera capable of taking images at the rate of 4.4 trillion per second around one meter in length has been developed by Japanese scientists. It will be capable of recording chemical reactions and heat conduction which in the experiment occurs at a sixth of the speed of light. It claims to be 1,000 times faster than the quickest existing mechanical camera. The new technique is called Sequentially Timed All-optical Mapping Photography (STAMP) having resolution of 450 x 450 pixels. It uses the technique called motion based femto-photography to capture images in a single burst without the requirement for repetitive measurements as used in current ultra-high-speed cameras. It took three years to develop and could one day be used in various fields like healthcare, manufacturing of semiconductors, etc. (www.dailymail.co.uk)

WATER-BASED ORGANIC BATTERY

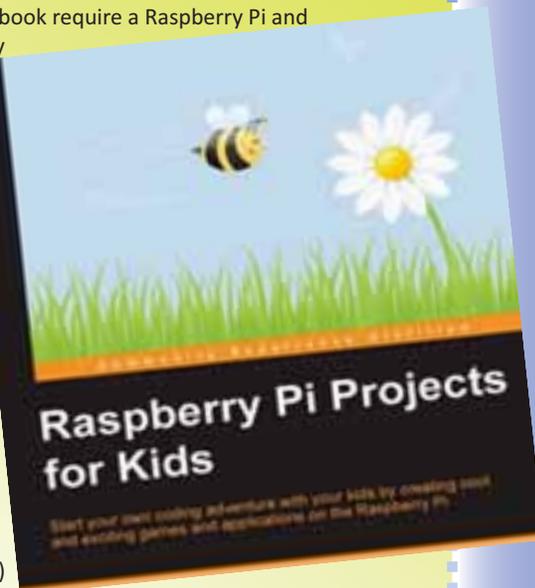
Scientists have developed a new battery that uses no toxic material or metal like lithium in laptops and lead in cars. The technology called an organic redox flow battery, is cheap and environment friendly. The batteries last for about 5,000 recharge cycles having an estimated 15 years life span instead of lithium ion batteries that degrade after around 1,000 cycles. The batteries are designed for use in power plants allowing them to store energy on a large scale. Oxidized organic compounds called quinones found in plant, bacteria, and fungi and in some animals are perfect fit to power the battery. Anthraquinone-2-sulfonic acid on the negative side and 1,2-dihydrobenzoquinone-3,5-disulfonic acid on the positive side of the cell are the quinones used in the new battery. (www.gizmag.com)



A GADGET BOOK

Raspberry Pi Projects for kids is a short book around 100 pages introducing software/programming languages like Scratch and Python. This book will teach you how to make your own computer game, how to connect light and switches (simple electronics) and how to access Google maps to create a personal map of your area. All projects in this book require a Raspberry Pi and other necessary

peripherals listed at the beginning of the book. This book is designed to help children and adults jump into creative coding with vivid imagination without having any prior experience. (www.blazenfluff.com)



WHAT'S NEW



NEUROSYNAPTIC CHIP

The Defense Advanced Research Project Agency (DARPA) and scientists from IBM in San Jose California have created a breakthrough technology by developing a chip inspired by the human brain. The technology that requires only a fraction of the electrical power of other chips is loaded with more than 5 million transistors and 250 million synapses that mimic the connections between neurons in the brain. The SyNAPSE (Systems of Neuromorphic Adaptive Plastic Scalable Electronics)-developed chip could allow unmanned aircraft or robotic ground with limited power budgets. This chip consumes less than 100 milliWatts of electricity and allows military personnel to carry lighter computer equipment on deployments where electrical power is limited. This chip runs in an asynchronous manner, processing and transmitting data only as required, similar to how the brain works. (www.globalaviationreport.com)

THE LIGHTIE

It is test tube shaped solar powered light bulb designed to provide sustainable and affordable lighting to people who still use paraffin for their lighting needs. The system involves an efficient CIGS (copper indium gallium selenide) photovoltaic panel, LED light and integrated rechargeable batteries. A system uses the lithium battery technology, which needs 5-8 hours of sun to fully charge and can provide over 40 hours of low-setting light. The lightie is designed to fit all 22 mm pet soda bottle necks and is capable of charging under rainy or cloudy conditions. It can provide 12 times more light than paraffin light and its battery can last 4-5 years. (www.gizmag.com)



REQALLABLE INCAR APP

Reqallable incar (beta) is a first context aware android app 33.93 MB in size. It can be downloaded for free via the Google play store. It is a hands-free app that blocks out all distractions (phone related text calls and emails) while driving. It reads out only important parts within incoming emails and messages, acknowledges notification only from priority contacts (specified by app settings) and users can reply by voice. Users can connect it to the car via a Bluetooth, it turns on the drive safe mode when the user is about to start driving. It



is easy to use and also provides GPS navigation via Google maps. (www.digitaltrends.com)

ANTI-COUNTERFEITING FILM BASED ON NANOTECHNOLOGY

To fight back against counterfeiters researchers create labels that will change when breathed upon by consumers revealing hidden images. This is because the surface of these sheets is studded with a grid of columns known as nanopillars each 100 times thinner than a human hair. When the material is breathed on, the gap between pillars fill in and the moisture in the breath condenses in the filled design thereby creating image. By using a blend of polyurethane and epoxy researchers were able to make sheets that are scalable, durable and resist being rubbed away. The sheets are currently moldable up to 20 cm in diameter. The production method



is cost effective also roughly one dollar per square inch. The team demonstrated that the polymer could stick to plastic, fabric, paper, metal and also to glass and leather. The simple phenomenon could make it easy for buyers to avoid being fooled by fake packaging. (www.gizmodo.com.au)