

Weekly Discovery

We SHARE to inspire and ignite ideas!

1 May 2017 – 5 May 2017

AUTOMOTIVE TECHNOLOGY

A Sense of Hearing Could Make Cars Safer and More Reliable



OtoSense is a company that has designed software that enables cars to identify specific noises such as changes in an engine or a vehicle's brakes. This could keep autonomous cars in optimal working condition and help people identify issues with their cars early on.

Source: [MIT Technology Review](#) (1 May 2017)

BATTERY TECHNOLOGY

Quantum effects lead to more powerful battery charging

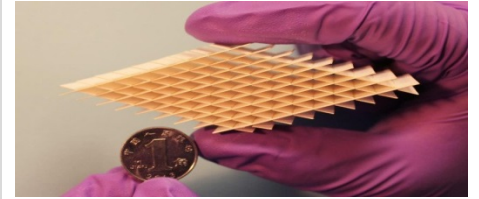


Researchers were able to illustrate that quantum phenomena can improve charging capabilities of quantum batteries. Paving the way for optimal charging for nano-devices dependent on batteries that consist of few quantum systems. Read more at [Physical Review Letters](#).

Source: [Phys.org](#) (1 May 2017)

ENERGY HARVESTING

Paper-Based Power Source Makes the Cut



This paper-cutting design is an ultra-light power unit that can generate energy from body movements and store it for portable electronic devices. Read more at [ACS Nano](#).

Source: [Asian Scientist](#) (25 April 2017)

FASHION

Amazon's Echo Look is a personal robot stylist that helps you decide what to wear



Echo Look has a camera that provides feedback on various outfits worn, through a service called Style Check. It is even able to recommend new brands and styles inspired by frequently worn outfits.

Source: [Dezeen](#) (27 April 2017)

MATERIAL SCIENCE

New Materials Conduct Electricity at the Speed of Light

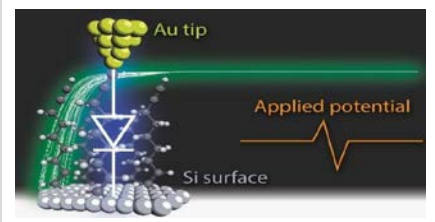


To enable quantum computers to work in regular conditions, scientists strived to explore 2D materials conducting electronic particles at the speed of light. Learn more about the new materials at [Science Advances](#).

Source: [Futurism](#) (30 April 2017)

NANOPHYSICS

Researchers build a single-molecule diode



Existing diodes consist of multiple molecules. Now, researchers have designed a diode made of a single molecule, which has high efficiency. This diode is so small that billions of diodes can fit on a tiny silicon chip. Read more at [Nature Communications](#).

Source: [Phys.org](#) (26 April 2017)

ROBOTS

Watch this robot construct the world's biggest botmade building by itself



A mobile robot had constructed via 3-D printing the largest igloo-shaped building ever measuring 14.6 m. It will lead the way for autonomous machines to create entire towns in the future.

Source: [Science](#) (26 April 2017)

SENSORS

Advancements in Fingerprint Sensors, Ultraviolet Optical Sensors, and Virtual Taste Sensors



Read this report on [innovations in sensor technology](#). They include technology that detects concealed moving objects, a system that monitors how tired a car driver is, an ultraviolet optical sensor and virtual taste sensors.

Source: [Frost & Sullivan](#) (28 April 2017)

SURVIVAL KIT

Nanospark fits everything you need to start a fire in one hand



This patent pending innovative firestarter which consist of a flint, tender and pivot is able to operate with one hand has already received more than 75% funding from Kickstarter.

Source: [Digital Trends](#) (1 May 2017)

TREE TOWER

Skyscraper competition proposal involves erecting towers within world's largest trees



A group of South Korean designers have redefined the term treehouse by coming up with a concept of inserting towers inside the hollowed-out trunks of giant sequoias. This design had received honourable mention in the 2017 eVolo skyscraper competition.

Source: [Dezeen](#) (1 May 2017)

WIRELESS SENSING

This wall-mounted device wirelessly tracks walking speed without a wearable or a creepy camera



Introducing a wall mounted system '[WiGait](#)', which is able to track a person's walking speed without any help of wearables and cameras. It could have profound applications in healthcare and eldercare.

Source: [The Verge](#) (1 May 2017)

3D PRINTING

Walk This Way: 3D Printing Drives New Advancements in Foot Orthotics



Stratasys Direct Manufacturing is now collaborating with Peacocks Medical Group in utilizing 3D printing for custom orthotics. The 3D printed orthotics not only relieves pain and enhances mobility. It also eliminates the need for top-covers, glued-on pads or foams, as with traditional orthotics.

Source: [Additive Manufacturing](#) (1 May 2017)

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