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Located in The Netherlands

Electronics - Mechanical - Filaments

Finally after a few months a new newsletter. A lot has happened since the last newsletter: we moved to a new office, we got a new logo and a lot of new products are available! If you have feedback regarding the newsletter or you like to share your own news that is interesting for our audience, please feel free to drop a email at: info@reprapworld.com.



RepRapWorld on tour: Repair cafe

Saturday May 16th we were invited to show off our printers at the local [Repair cafe](#). People can bring over goods (electronics, clothing, furniture) to the Repair Cafe and volunteers will try and fix them, so they don't get thrown away. The Repair Cafe is every month and each time it has a different theme.

This time the theme was 3D printing, hence we were invited to come over and show our printers, answer many different questions and tell about 3D printing in general. It was nice to see people of all ages, ranging from 12 to 70 all interested in the technology. We had a great time and hope to do this again soon.

Beer and pizza (and 3D printing)

Local RepRap users are invited to attend RepRapWorld's weekly Print & Pizza meet up every Thursday evening at our shop in Nootdorp. Bring your latest 3D prints, questions and innate curiosity to share with us and others in the DIY community. Entrance is free; and the optional dinner (eg: pizza) is a flat 10 Euros (€5 for Children <14) . Doors open at 6:30, but please arrive no later than 7pm to get on the dinner ordering list.

The first session was a big success, around 12 people showed up! Some people looking for a 3D printer, some bringing printer stuff with them and some more into general electronics. It was also nice to see some kids interested in technology and asking lots of smart questions.

This thursday is the second event, we have quite a few people already promised to show up, so make sure to be here too!

[3D Printed Exoskeleton Hand Paves the Way to Transhumanist Future](#)

In the industrial world, real attempts at developing exoskeletons are underway, with some firms envisioning the ability to increase the strength of firefighters and soldiers. For example the hand can be modified with a shovel like module made for landscaping or clearing debris. Or claws for more grip while climbing. This may be a new way of human evolution.

[Researchers develop new 3D bioprinting technique for engineering joint cartilage](#)

Among other reasons, 3D bioprinting may hold the answer to the future of organ replacements in the case that there may not be a donor available in a life or death situation. Among other projects that have been done, doctors may soon have the ability to not just 3D bioprint a replacement thyroid gland in a lab - but actually in an operating room next to a patient within minutes. Of course, scenarios like this exist on the extreme end of the spectrum, however the existing developments that are occurring today are moving at a rapid pace.

[3D print your own 'Tact', a low-cost, advanced prosthetic hand](#)

While some of the earliest prosthetic devices provided basic functionality for those with minimal use of their fingers, the 3D printed prosthetic designs have literally created an entirely new industry that includes both non-profit organizations and professional designers aimed at further revolutionizing these amazing and low-cost enabling devices.

[New 3D printed microbattery could independently power small chips](#)

The results of the study will appear in an article entitled 'Holographic Patterning of High Performance on-chip 3D Lithium-ion Microbatteries,' to be published in Proceedings of the National Academy of Sciences. First author and graduate student Hailong Ning explained that they essentially combined various concepts from various manufacturing specialisms to create the battery. 'This work merges important concepts in fabrication, characterization, and modeling, showing that the energy and power of the microbattery are strongly related to the structural parameters of the electrodes such as size, shape, surface area, porosity, and tortuosity. A significant strength of this new method is that these parameters can be easily controlled during lithography steps, which offers unique flexibility for designing next-generation on-chip energy storage devices,' Ning said.

Events

Workshop Troubleshooting & Maintenance

Date: Wed 27th May, 7:30 - 9:30pm

Location: RepRapWorld, Nootdorp

Price: ~~€70~~ €35 * incl. VAT

Language: English

Max. enrollees: 6 pers.

This two hour hands on workshop provides information on techniques to maintain, troubleshoot and upgrade your RepRap 3D printer. We will focus specifically on failure mechanisms, pre-emptive failure detection, and methods for improving your machine's performance and reliability. Individual troubleshooting issues may also be addressable within the time period as long as detailed description of the problems are provided in advance.

* As this is the first session, the workshop is offered at a discounted price. This price is per person and includes drinks and snacks.

Slicing & Toolpath Optimization with Slic3r

Date: Tues 2nd June, 7:30 - 9:30pm

Location: RepRapWorld, Nootdorp

Price: ~~€70~~ €35 * incl. VAT

Language: English

Max. enrollees: 6 pers.

Learn the pros and cons of some of the most prevalent 3D printer slicer software and how to utilize their features and toolpathing characteristics to improve print appearance, strength and overall success. We will focus specifically on the effect of critical slicing parameters on the print, their relationship to your firmware settings, and the process of evaluating the resulting tool path prior to printing in order to identify and mitigate possible issues. Familiarity with firmware is not required.

* As this is the first session, the workshop is offered at a discounted price. This price is per person and includes drinks and snacks.

Future Workshops (tentatively planned for later in June)

- Working with Filament Types: PLA, PETG, ABS, HIPS, Flex, Florescent, Wood
- Printer Performance Optimization: Firmware vs Hardware
- Pushing the Envelope: RepRap Trends, Exotic Filaments, Latest Improvements
- Introduction to RepRap: Is an Open-Source Printer Right for You?

Printing with PETG



We've finally released our new line of PETG filament in a wide variety of translucent colors. PETG is becoming a very popular material in the 3D printing community, due to its high flexibility, strength and durability. The material is weatherproof and prints at ABS temperatures, without the adhesion and shrinkage issues normally associated with ABS. Translucent PETG is an impressive and attractive material for printing vases, lampshades or other thin-shell objects.

About PETG

PETG has several advantages compared to PLA or ABS. Our extensive testing reveals the following qualities:

- 1) High flexibility without loss of strength with equal to superior layer bonding over ABS and PLA
- 2) Shiny translucent appearance for thin-shelled vases
- 3) Print temperature is similar to ABS, but shares PLA's lack of warping and easy bed adhesion.

What's new?



E3D hotends

We've expanded our line of [E3D extruder products](#) to now include these exciting new options:

- Chimera & Cyclops all metal dual extruders: Now you can create your prints with support material or a second color!
- High speed Volcano upgrade kit: Print faster than ever using a larger heaterblock and nozzle. Upgrade your existing E3D v6 hotend or use in combination with

Chimera

- Low cost E3D lite: Less than half the cost of the standard E3D extruder, this version is ideal for beginners on a budget that won't require printing temperatures above PETG and ABS (240 deg)



Ultra small stepper motor

In addition to the other three types of stepper motors we already carry, there is now also a [34mm length NEMA 17 stepper motor](#). Less height and less weight make it a good candidate for geared extruder motors or small design printers

* Prices are excluding VAT and subject to change without notice