



<http://reprapworld.com>
info@reprapworld.com
Located in The Netherlands

- One to replicate them all -

Electronics - Mechanical - Filaments

Welcome to our sixth newsletter! A lot has happened the past few months: new products, new company (we are now a B.V., which is equivalent to a ltd.), new brand (Dutch PLA/ABS has become REAL-filament). So now at the end of this year it's time to look back to a great year and looking forward to next year. We at RepRapWorld.com would like to thank all you loyal customers and wish you merry Christmas and a happy new year! 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.



We have two options available for end stops: optical and mechanical. Mechanical uses a switch, which triggers when hit. The optical uses infrared and detects a blockage of the light with a sensor. The advantage of a mechanical end stop is the easy implementation, the optical end stop can be a bit fiddly. But the mechanical end stop has a much shorter lifespan, as it wears out sooner. Another advantage of the optical end stops is precision, especially for the Z-axis a high precision is recommended.

A lot of customers ask whether it's recommended to use two end stops on each axis. If your printer is properly configured, they are not necessary. It can't hurt to have them, but the firmware on the printer will go fine without. Also, not all electronics do support six end stops.

Configuring end stops in the firmware is generally easy. There are only a few options available, which need settings depending on the type of end stop. The end stop will inform the electronics of the state using a HIGH (5v) or LOW (0v) voltage on the signal pin. Firstly there is inversion setting in the firmware, controlling how a HIGH value of the end stop should be interpreted. If inverted, HIGH means not hit while when uninverted it means hit. Aside of the inversion there is also pullup. This is mostly required for mechanical end stops. When pullup is enabled, the electronics will keep the signal pin HIGH. When the end stop triggers it's supposed to pull it to low, allowing the electronics to detect the hit.

[3D print yourself a simple, cheap and versatile circuit board](#)

Jonny Bischof, a YouMagine user, has just shared a very useful and equally accessible guide for 3D printing yourself a very cheap circuit board that can be used for whatever project you're working on. And before you start lamenting that you 'can't print conductive filament' or that you don't have the skills to assemble it, relax!

[Hershey announces its first ever 3D printed chocolate exhibit](#)

The Hershey Company, in partnership with 3D Systems, today announced the December 19 debut of its 3D Chocolate Candy Printing exhibit at Hershey's Chocolate World Attraction.

[Curing Cancer with 3D Printing](#)

A group of British researchers from the Institute of cancer research in London have 3D printed replicas of cancerous body parts using CT scans and are using them to better target the tumors with more effective treatments.

[3D Printed Muscles Bring a Robotic Flower to Bloom](#)

The Instructable provided is for the creation of a flower with six 3D printed petals that can open and close. This is no gimmick, however; there are some significant possibilities for application as the type of air activated muscle becomes more and more refined.

What's new?



Mechanical endstop v1.1

[Mechanical endstop v1.1](#). Mechanical endstop pre-soldered on a PCB with debounce function. Easily connectable to major RepRap electronics. It has a LED indicating a hit to the endstop.



NEMA17 Stepper motor 0.9 degrees step

Next to the normal and small stepper motor we now also have a [NEMA17 Stepper motor 0.9 degrees step](#).



Heated Bed glass 300x300x3mm (Borosilicate)

Back in stock [Heated Bed glass 300x300x3mm \(Borosilicate\)](#), new version with smooth edges!

Highlights



New metal cold end version!

The [full metal cold end](#) design has improved! It's a bit slimmer, but more importantly: it's compatible with E3d! So you can now enjoy a full metal setup including a metal carriage, cold end and hot end!



REAL-filament

Our Dutch filament line has a new name: REAL-filament. The website is currently under construction, but will open early 2015. For now you will get the quality filament you are used, but with a new name. Besides PLA/ABS we are planning on producing more types of filament, including PETG and glow in the dark.

Real Filament, Real Prints

* Prices are excluding VAT and subject to change without notice