



## 3D Print Notifier



by [\\_Marcel\\_](#)

This device sends a push notification to your phone as soon as one of your 3D printers has finished a print job.

It works with any 3D printer and can monitor up to four 3D printers simultaneously.

### **Technical working**

A D1 Mini (or other ESP8266 based micro controller) monitors all your 3D printers (1, 2 or more printers). A printer can either be a Prusa MK4 connected to your home wifi network or any other 3D printer that is attached to an Octoprint server (I use Octoprint instances running on Raspberry Pi's).

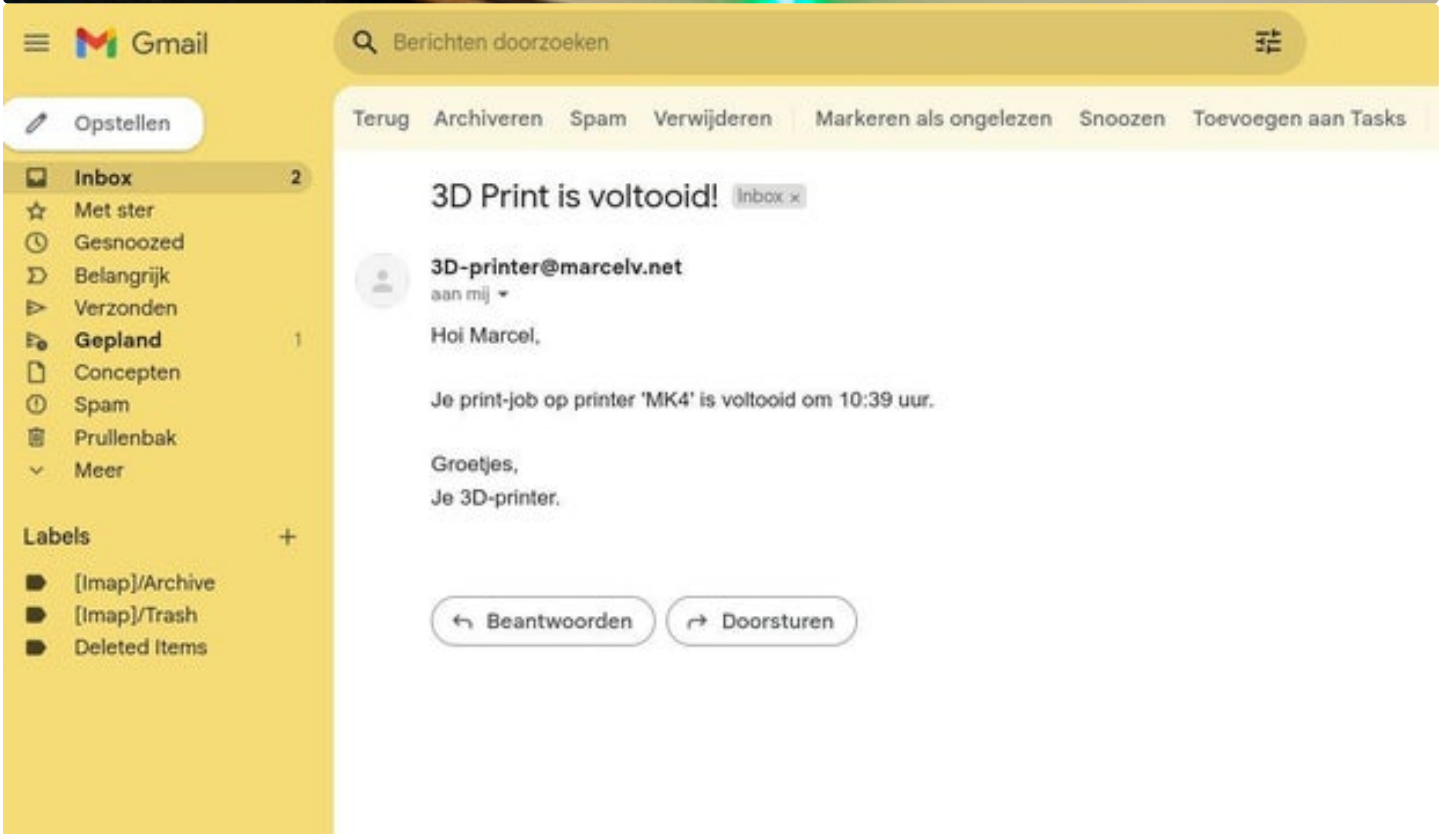
As soon as a 3D printer finishes a print job the D1 Mini will call a PHP script running on a webserver (always online) to send an email with details of the completed print job. Your smartphone with your regular mail client will receive the mail and popup a message on your phone.

### **Supplies:**

- 1x WeMos D1 Mini (or any other ESP8266 device like a NodeMCU).
- Up to 4x green LED. For every 3D printer you want to monitor you'll need one LED.
- Up to 4x resistor 220 ohms.
- 4x Brass threaded inserts M2.5 with 4 bolts M2.5 to screw the case lid. For instance at [Amazon](#).

### **Tools/resources:**

- A 3D printer to create the project case.
- A webserver hosted online.



## Step 1: Make the Hardware

Build the project case using either the STL files below or by creating your own STL files using the OpenScad file. Mount the D1 Mini inside the case and lead out the USB cable. The USB cable is used for programming the device and later for powering the device.

Solder the resistors to the LED's and connect them with wires to the D1 Mini. See the schematic diagram how to hook them up.

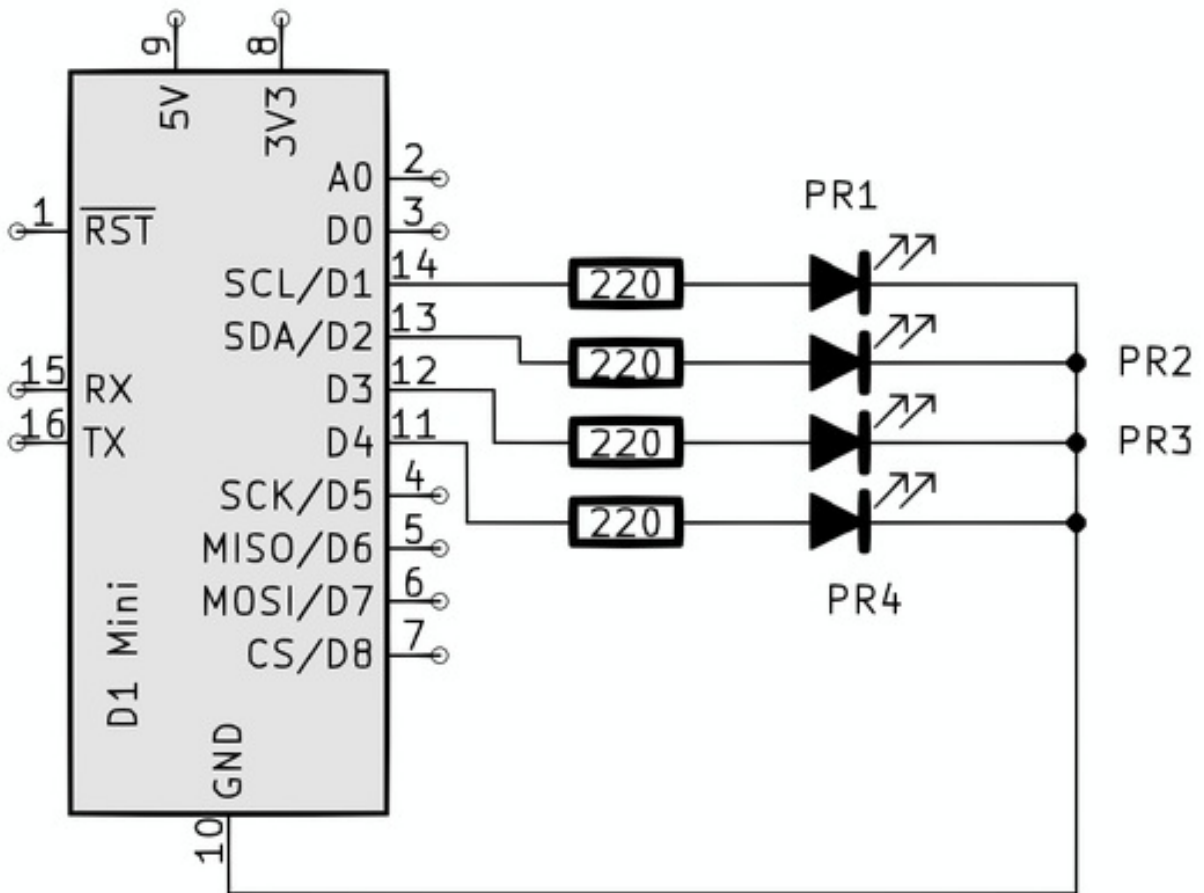
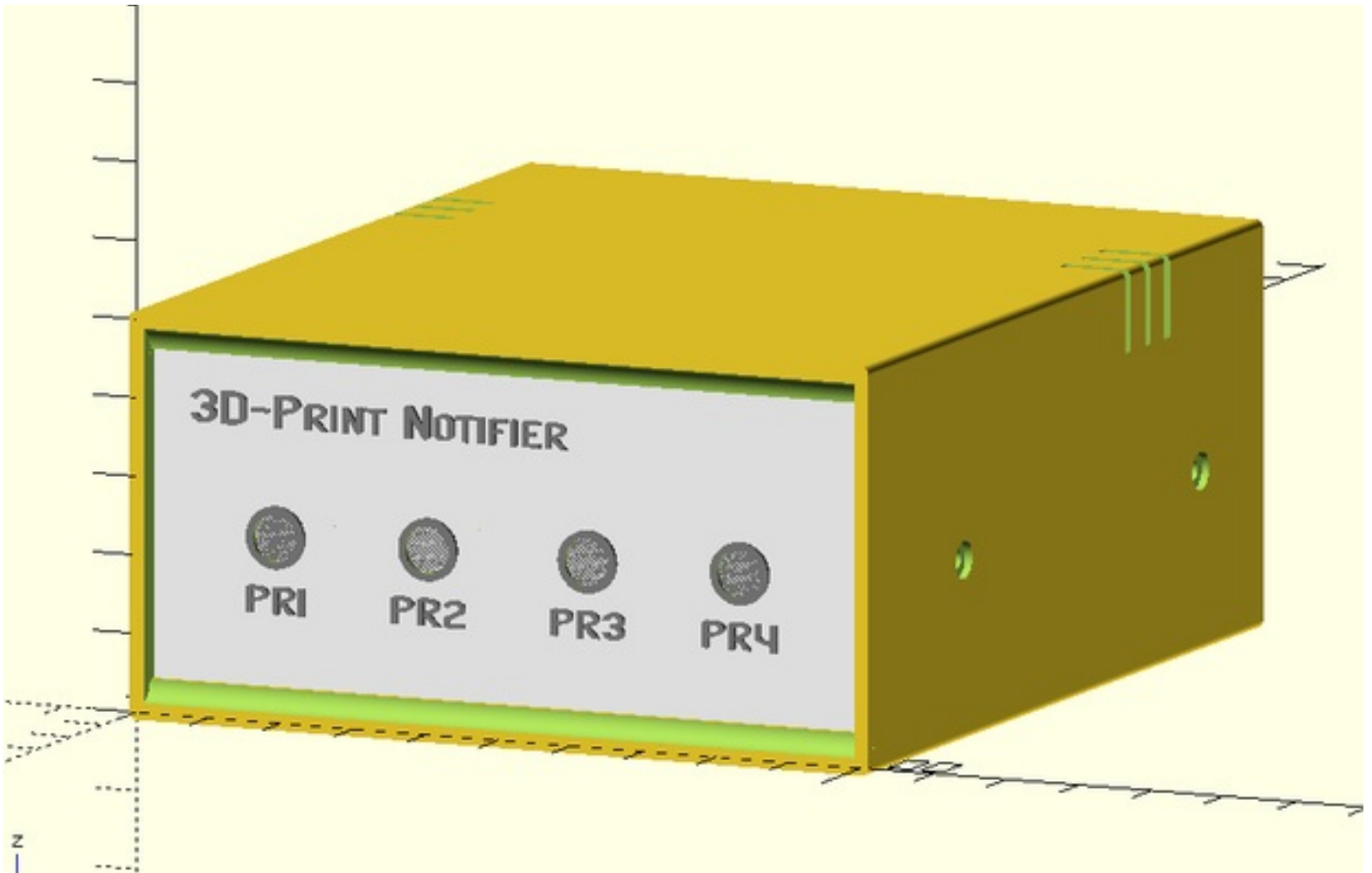
Find the OpenScad file of the case below so that you can change the number of LED's or alter the texts.

**Additional supporting file:**

Alle supporting files are on my [Github](#).

[Project case \(OpenScad file\)](#)





	<a href="https://www.instructables.com/FXS/T21S/LKE0U4PI/FXST21SLKE0U4PI.stl">https://www.instructables.com/FXS/T21S/LKE0U4PI/FXST21SLKE0U4PI.stl</a>	<a href="#">View in 3D</a>	<a href="#">Download</a>
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## Step 2: Upload Firmware

Download the latest version of the firmware from my Github and edit the file before using it. In the file you must enter the details of your 3d printer(s): the URL of the printer or of the Octopi device and the API keys of the printers.

Also you can edit the details of your home network (wifi SSID and password) in that file and edit the URL of your webserver (more on the webserver in the next step).

After this upload the file to the D1 Mini using the Arduino IDE or some other means.

### **Additional supporting file:**

Alle supporting files are on my [Github](#).

[Firmware for D1 Mini or NodeMCU](#)



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### Step 3: PHP Script on Webserver

The firmware script from the previous step will call the **sendmail.php** file on your webserver. You can host this anywhere you want. It may also be a local server at home if that server can send emails via PHP.

Edit the PHP file to enter your personal details (your email address and the message body of the email) and then upload the file to your server.

That's it. Now you will receive a message every time one of your 3D printers finishes something beautiful.

Need help? If something doesn't work at your side or you need some technical help: do mail me for free assistance at [marcel@marcelv.net](mailto:marcel@marcelv.net) or just add a message below.

#### **Additional supporting file:**

Alle supporting files are on my [Github](#).

[PHP Mail sending script](#)