**BLTouch on Anycubic I3 Mega**

**What you need:**
**Anycubic I3 Mega – V2 ultrabase version** – MUST be the **8 bit version**. Won't work with 32 bit board
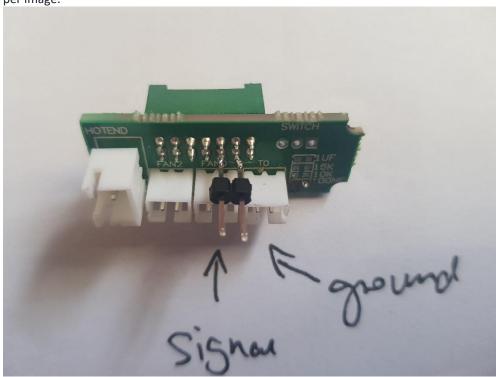
- I've also installed 2208 drivers, but have inverted the cable pin connector so it works like a stock board, no need to invert the outputs within the firmware
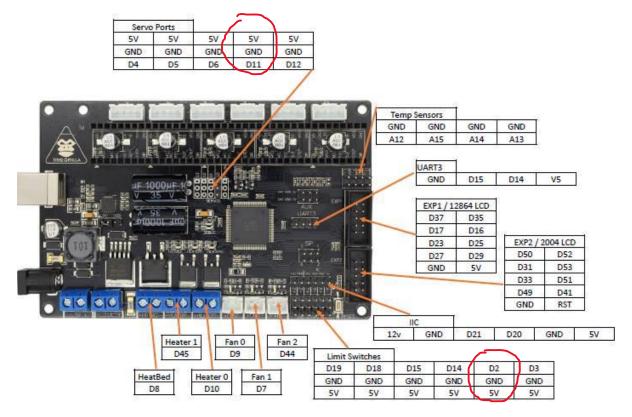
**BLTouch**
I've used the one in this link (Affiliate link, if you want to support this please buy from this link):
http://s.click.aliexpress.com/e/Qr72FaY

**What to do:**

1. Make this mount in ABS/High heat tolerant filament, and install it as per his instructions (as far away as possible from hotend) using m3 screws and nuts. Credit to Petrzmax. The offsets have already been coded into the firmware
   https://www.thingiverse.com/thing:2824005
   Install it as per thingiverse instructions.

2. Image below is of the wiring harness to the x head box
   Solder a 2 pin male to the pins highlighted. Remember which one is **signal** and which one is **ground** as per image.



3. Look at the trigorilla board diagram below **very carefully**, and note the **polarity of the ports**. i.e. what is 5v, what is neutral and what is signal. IF you wire it the wrong way, you will short the BLTouch. You'll need **D11 for the SERVO** i.e. 3 pin cable, and **D2 for the 2 pin SENSOR** cable.

4. Connect the 3-pin cable PIN CORRECT POLARITY to the D11 servo port, and route it out to the head unit with the hotend and BLTouch attached (Yellow is signal, red is positive and brown is negative) i.e. yellow to D11, red to 5v and brown to GND as shown in above image. The D2 pin is already wired into the wiring loom so you don't need extra wiring

5. Flash this firmware from link below. Original firmware based off derhopp and beaving - uses latest marlin build. Flash using Octoprint/Cura/whatever software you want. I'll update the firmware from time to time to keep it up to date with the latest fixes.
   **https://www.dropbox.com/sh/igl7ny8afryajq1/AADOUzbKtO8QfU5q04TysJdna?dl=0**

   This firmware allows use of the Z-endstops and Z-probe (Bltouch). G28 will trigger levelling using Z-endstops, while G29 will enable use of Z-probe to determine bed height alone the grid it measures.

6. There you have it, bltouch enabled! Note: it's a 5 x 5 bilinear grid that I've set, which covers almost the entire ultrabase. To use it, in the start GCODE script, have the following at minimum
   G28; Home axis
   G29; Enable Auto Bed Levelling (ABL)
   M500; Save firmware
   M420 S1; Enable BLTouch

For those of you who want to play with the firmware, the uncompiled version is here:
**https://www.dropbox.com/sh/stfyx6pmew2cwir/AABJQFy3XqVwAQRFrmpxkupia?dl=0**

Instructions written and firmware compiled by Robert Phan
As always, do this at your own risk, I take no responsibility for any injuries or malfunctions that may arise from this modification to your hardware