**Baselining Tips & E3Dv6 Clone Notes**

[Ron de Leos](https://www.facebook.com/ron.deleos)·[Sunday, July 17, 2016](https://www.facebook.com/notes/tevo-tarantula-prusa-i3-owners/baselining-tips-e3dv6-clone-notes/1089409057819734)

Here are few things I’ve collected on the way which I wish I had when I first starting my 3D Printing adventure (obsession).

Sometimes I’ve messed with things so much I forget about the basics. AFTER verifying the frame is square, all axis guides are moving smoothly with no play, and Hotend is assembled correctly (use E3D assembly guide - see link below) I verify or do the following before troubleshooting slicer / software settings:

1. PID Autotune\* [https://www.youtube.com/watch?v=APz...](https://www.youtube.com/watch?v=APzJfYAgFkQ) 2. Extruder Calibration\*: [https://www.youtube.com/watch?v=YUP...](https://www.youtube.com/watch?v=YUPfBJz3I6Y) 3. Basic Auto level Sensor BASIC setup: Tevo Tarantula Auto Level Instructions.pdf 4. To set the Z offset in the firmware I’ve been using this method with auto level to get near perfect first layer height.

Go to 9min 48sec [https://www.youtube.com/watch?v=EcG...](https://www.youtube.com/watch?v=EcGFLwj0pnA)

\*If not done already

Troubleshooting General:

After you know you have a good base then I use the following references: [https://www.simplify3d.com/support/...](https://www.facebook.com/l.php?u=https%3A%2F%2Fwww.simplify3d.com%2Fsupport%2Fprint-quality-troubleshooting%2F&h=fAQG_gvJR&s=1)

Printing with PETG try this: [http://forum.makergear.com/viewtopi...](http://l.facebook.com/l.php?u=http%3A%2F%2Fforum.makergear.com%2Fviewtopic.php%3Ff%3D11%26t%3D2593&h=wAQGjfqHG&s=1)

Another good guide: [http://support.3dverkstan.se/articl...](http://l.facebook.com/l.php?u=http%3A%2F%2Fsupport.3dverkstan.se%2Farticle%2F23-a-visual-ultimaker-troubleshooting-guide%23ringing&h=CAQESsT-2&s=1)

E3D v6 Hotend Assembly Guide: [http://wiki.e3d-online.com/wiki/E3D-v6\_Assembly](http://l.facebook.com/l.php?u=http%3A%2F%2Fwiki.e3d-online.com%2Fwiki%2FE3D-v6_Assembly&h=OAQH4RHg0&s=1)

**E3Dv6 Clone Suggestions**

Here's my personal experience & tips for E3Dv6 knock-offs, as I have both a genuine / authentic E3Dv6 and knock-off. YMMV

Knock-off heatbreaks vary greatly, The least desirable one and the most troublesome one I had had the input side drilled way too deep. Luckily I found an eBay source that had heartbreak nearly identical dimensions to the authentic version. They are so close I have to label my extras so I don’t get them mixed up.

Link to good all-metal knock-off: [http://www.ebay.com/itm/252391256649](http://l.facebook.com/l.php?u=http%3A%2F%2Fwww.ebay.com%2Fitm%2F252391256649&h=HAQFCmBH3&s=1)

Obviously not all knock-offs are created equal. The two knockoffs I’ve had differed in Heatsink fin thickness. One was much thinner when the one knock-off I currently use is extremely close to the authentic. Unfortunately the threads for the heartbreak weren’t threaded as deep to fully insert an authentic or a dimensionally correct knock-off heartbreak listed above. Luckily I had an 7mm tap which solved that issue. On that note the thinner finned version fit the authentic heartbreak just fine.

Spend the extra on the authentic Nozzle Tips. Knockoffs aren’t consistent, at least for me they never were. Once I switch to authentic nozzles it prints excellent and consistent. In terms of fit and finish you definitely tell the difference between the authentic and knock-offs. heatsink and heater block.

Does the machining quality effect the prints, I’m not sure. Is it worth the price difference? That’s for you to decide. Making the mods above has made my knock-offs print pretty damn good.