



How to do a Paper Test to set Z Height

Paper Test Procedure:

1. Start the bed heating up to 110 if you normally print ABS. If you normally print PLA on blue tape, then you can leave the bed cold. (PLA on green, use 65C.)
2. Heat the head to 230C, to make sure any plastic on the nozzle does not affect the adjustment. If the nozzle has a lot of plastic residue on the bottom, use the brass brush to clean it off (once it's hot).
3. Raise head to 10 or more mm off the bed.
4. Turn off the motors. (Press the "Motors Off" button which is along the left side in PolyPronter, under the Load File button - If the printer has recently printed or moved its head they will remain "on" for about a minute.)
5. Move the extruder about half way across so it's roughly in the middle from left to right.
6. Move the bed so that the nozzle is roughly over the half-way point from front to rear.
7. Place a sheet of (new or used) photocopy paper (do not use heavy paper or card stock) on the bed, under the nozzle.
8. Press the Z Home button . The head should approach the paper on the bed, and should normally touch it.

If the paper is gripped (pull gently) by the nozzle pressing it into the bed:

- a. Raise the nozzle 0.1 mm.  The paper should still be just a bit gripped.
- b. Raise the nozzle another 0.1mm and the paper should be completely free.
- c. If that is not the case, see "Adjustment", next.


If the paper is not at all gripped, see "Adjustment" just below.


Z Height Adjustment:

The Z Height adjuster is the yellow knob on the left X Carriage, hiding behind the left aluminum vertical support. (It's a little shy and does not like people watching it change.)

After each adjustment, you must press the Z-Home button (or hit Z on the keyboard) to make the printer move to find the new home position, and to let you see what difference the changed setting made.

Paper test, continued:

If the head does not even grip the piece of paper at all, or completely lets go when raised 0.1 mm , (underneath the Z column) turn the knob counter-clockwise to reduce the clearance.

If the paper is still gripped, press the  again. If the paper is still firmly gripped after raising a total of 0.2 mm, then increase the gap by raising the head, by turning the Z adjuster clockwise a little clockwise.

One full turn is 0.5 mm, which is quite a lot. If it's already very close to being correctly adjusted, turn it much less than a turn - 1/8th or 1/4 turn at a time is a good starting point.