XAYAV HAK

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Installation Instructions

WARNING

For safety purposes be sure that the printer is in the off position AND unplugged whenever working with the electronic parts inside the case.

xayav.com is not liable for any damage caused to you or your printer due to the installation of this product.

Compatible Printers

Creality: Geeetech: Cr-10 A10 Cr-10s A10M Cr-10s pro A20 Cr-10s4 A20m Cr-10s5 Ender 2 TEVO: Ender 3 Tornado CR-X

First Steps: Bed Leveling

1. All Printers

- a. Bed Leveling
- **b. NOTE:** There are many videos demonstrating the paper method of manually leveling your 3d-printer, be sure to look one up for tips and tricks!

i. CR-10S Pro

- 1. For CR-10S Pro users this means turning your printer on, selecting settings, move, and then pressing the home button.
- 2. After the printer has finished homing, the z-axis will read 10mm, instead of 0mm.
- 3. Press the "Z -" button to bring the print head back to zero as it is necessary for the leveling process.
- 4. Next, hit the return button and navigate to the disable stepper motor option which will allow you to move the x and y axis freely by hand.

ii. Other Compatible Printers

1. Other printers may need to be powered off for leveling, but the next steps are the same.













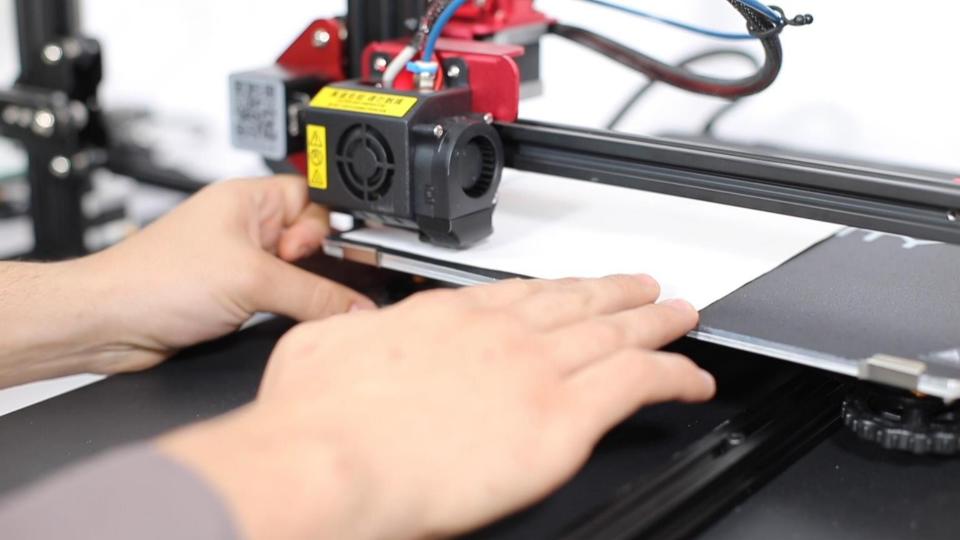


Bed Leveling Continued

- 1. Once your printers' extruder can move freely, lay the paper down in one corner of the bed and set the extruder above it.
- 2. Next, spin the bed adjustment knob on that corner until the extruder tip touches the paper and then back off slowly until you can feel slight drag when moving the paper under the extruder tip.
- 3. Then, move to the next corners and repeat until all four corners and the center of the bed are checked for height consistency.

NOTE: Although the CR-10S Pro has automatic bed leveling, we recommend using this simple manual leveling method to guarantee install accuracy.





Installation Instructions For

Creality CR-10s Pro

CR-10S Pro

Wire Installation

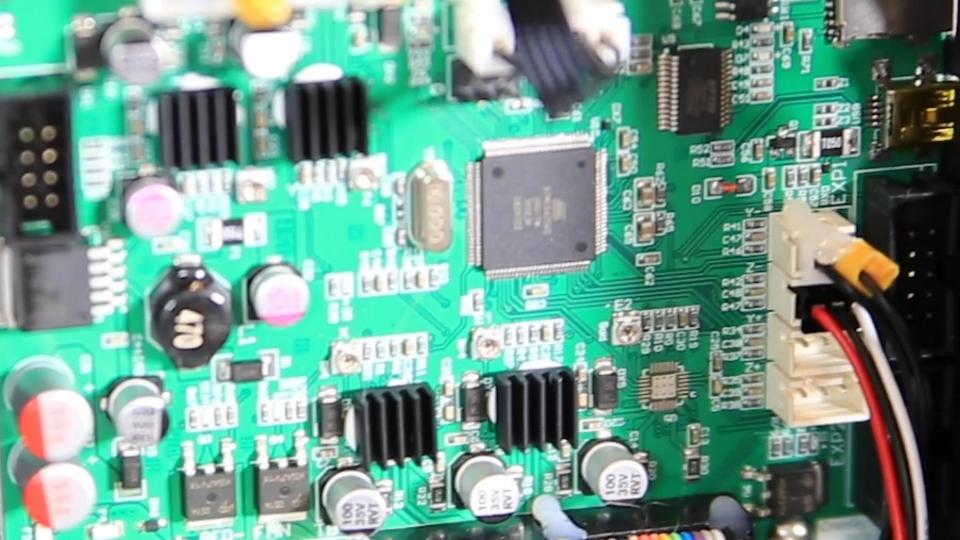
- 1. Turn the printer off and disconnect the power cable for safety.
- 2. Carefully lay the unit on its back.
- 3. Remove the 12 phillips head screws from the bottom of the case.
- 4. Remove the 2 screws from each side of the case.
- 5. Plug the 3 pin, Red, Black, and White, cable into the 3-pin port on the motherboard that is labeled "Z-". Route the cable down along the rainbow ribbon wire, across the printer and out of the wire port. VERY IMPORTANT NOTE: On either side of the 3 pin wire. The black wire in the middle should be cut. Only 2 wires should be connected between the switch and the printer.
- 6. Leave 3" of wire exposed through the wire port, and then bundle and Ziptie the excess wire to the existing ribbon wire mounting point.
- 7. Replace the cover, put the unit in the upright position and power it back on.



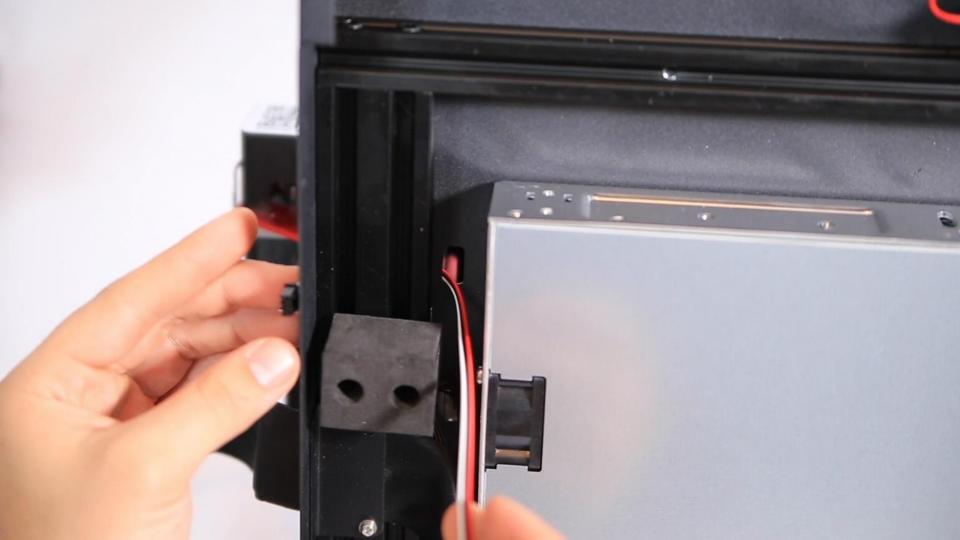






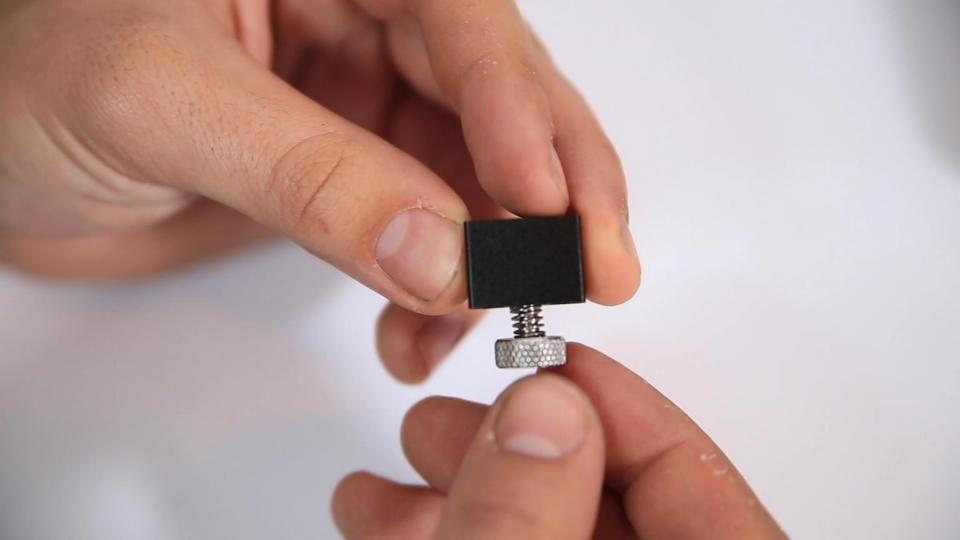


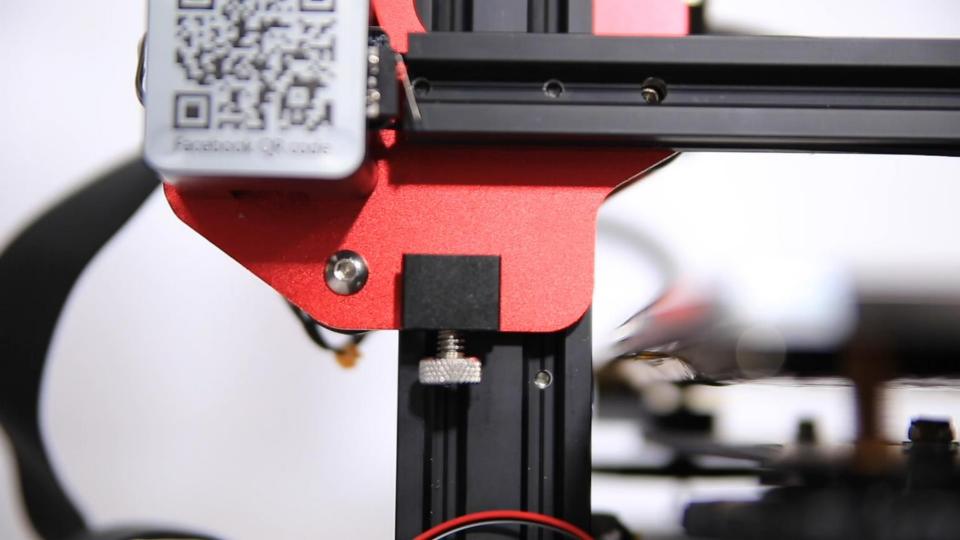




Adjustment Knob Installation

- 1. Be sure that the adjustment knob is screwed in to the black housing so that only $\frac{1}{4}$ " of thread is visible.
- 2. Remove the protective film from the sticky tape on the back of the adjustment knob.
- 3. Line the bottom of the adjuster up with the bottom of the z-axis gantry, and the left side of the adjuster up with the left side of the vertical z-axis rail.
- 4. Press the adjuster firmly into place.





HAK Installation

- 1. Plug the red, black, and white, 3-pin wire into the HAK.
- 2. Line the T-Slot nuts on the back of the HAK up with the channels in the z-axis rail, set it in place and move it upward until you hear a click from the limit switch.
- 3. Once the switch is depressed (and the green light is on) tighten the HAK into place.

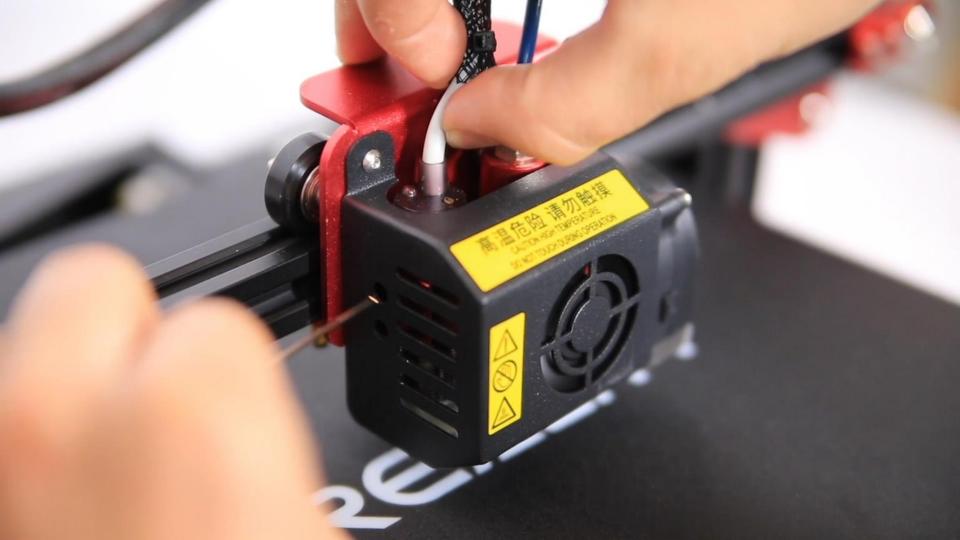




Proximity Sensor Deactivation

- 1. With the unit powered on and the z-axis zeroed out you should see a red light emitted from the proximity sensor.
- 2. Using the allen key provided with your printer, loosen the two set screws holding the proximity sensor on the side of the extruder housing, slide the proximity sensor up until the red light turns off, and then slide it a few more millimeters to be sure it doesn't interfere with height adjustment.
- 3. If you ever wish to utilize the proximity sensor again, simply loosen the proximity sensor and move it back down until the red light turns back on, and then twist the adjustment screw on the HAK up until the green light turns off.





Sticker Install

Don't forget to install the included XAYAV stickers, the black sticker has instructions for how to adjust the HAK's thumbscrew!



Installation Instructions For

All Other Compatible Printers

Other Compatible Printers

1. Wire Install

- a. Disregard the red, black and white, 3-pin wire included with your HAK.
- b. Instead, unplug the wire from the z-axis limit switch on the left side of the printer.
- c. With the metal tabs facing you, use the mini screwdriver (or other small, pointy object) to depress the LEFT wire's retaining pin and slide the wire out.
- d. If the pin is still depressed you can pull it back up slightly before reinstalling the wire in the center slot.
- e. This wire will now be compatible with the XAYAV HAK.

2. T-bracket

- a. Remove the T-bracket from the left side of the z-axis.
- Remove the limit switch from the T-bracket and set it aside.

3. Thumbscrew

- a. Install the Thumbscrew Adjuster in the same manner as the CR-10S Pro.
- b. Be sure to line the bottom of the black adjuster housing up with the bottom of the z-axis gantry bracket and the left side of the adjuster up with the left side of the vertical z-axis rail.

4. HAK Install

- a. Install the HAK in the same manner as the CR-10S Pro, with the exception that now there will be no green light when the HAK is clicked. instead you will rely on the click of the switch to know when the HAK is in place.
- b. Reinstall the T-bracket, install the included stickers, and enjoy your HAK!

