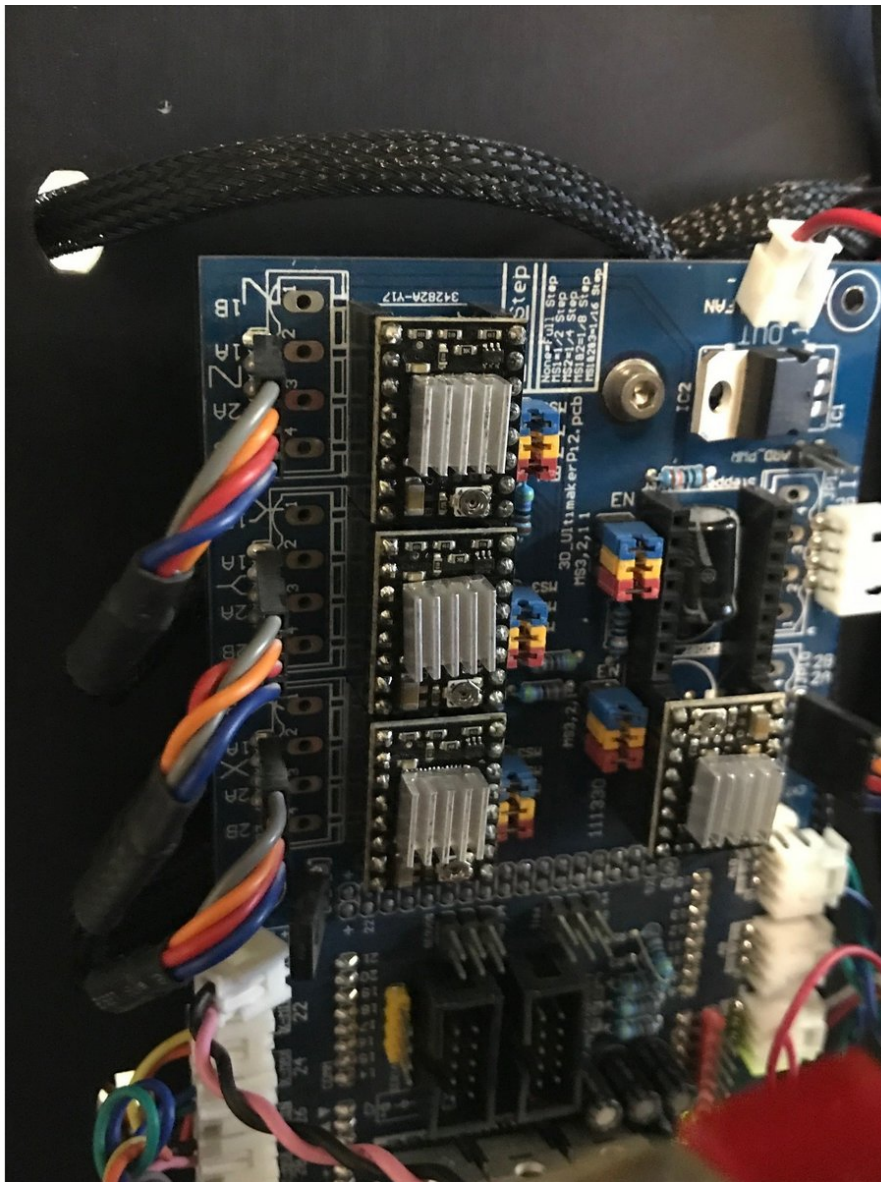# How To Install Black Pololu Motor Drivers

This guide will show you the correct location and orientation of the black Pololu motor drivers when installing on BoXZY's electronic board.
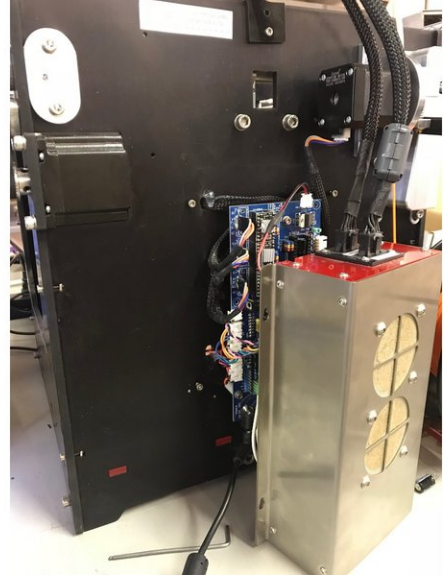
Written By: Nicki

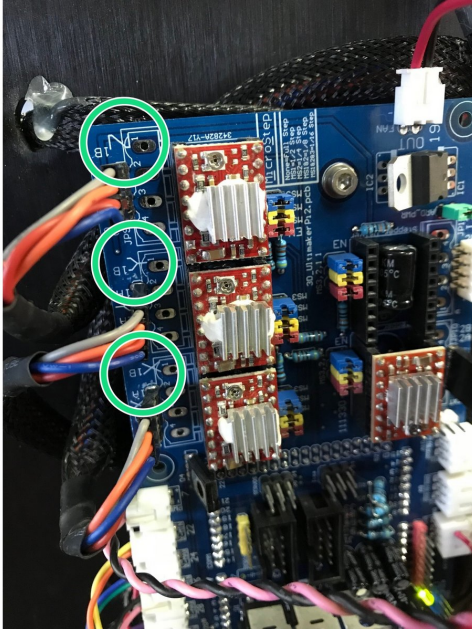This document was generated on 2019-11-13 02:44:24 PM (MST).

🔧 TOOLS:

- 2.5 mm allen key (1)

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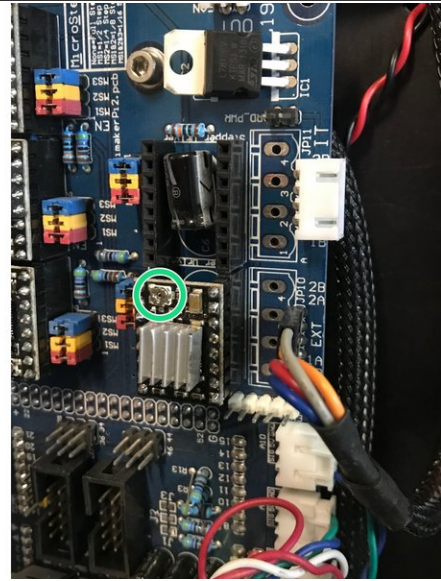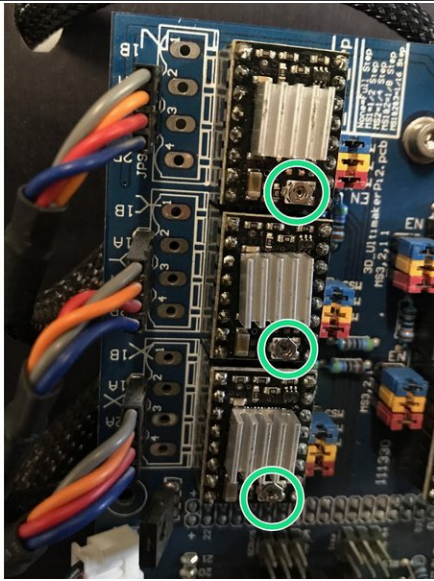
Step 1 — Remove fan cover

- Use your 2.5mm allen key to loosen the four bolts on the outer edge of the fan cover.

- Carefully lift the fan cover up.

- Slowly pull the fan cover away from the body. This will expose the electronics board. Pay close attention to the wiring connected to the board, so that you do not pull any connection loose.

    - The wires connecting the fans to the board are often tucked behind the top corner of the board. As you pull the cover, away be sure to gently move the wires around the corner so that they do not get disconnected.

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Step 2 — Locate and remove bad stepper driver

- The X, Y, and Z motors are labeled on the left side of the board (circled in green). The stepper driver that controls each motor is adjacent to its corresponding letter. The stepper driver controlling the filament drive is by itself on the right side of the board .

  - The stepper drivers are in order Z, Y, then X from top to bottom. The filament drive driver is directly to the right of the X driver.

- Carefully remove the bad stepper driver by pinching it on both sides while pulling away from the board.

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Step 3 — Replace with black Pololu driver

⚠ Please note that it is very important that you attach these drivers with the correct orientation. If they are installed upside down there is a high probability of frying the driver. The correct orientation is NOT the same as BoXZY's standard drivers.

- We are going to use the driver's potentiometer, aka pot, as our point of reference when installing the drivers. The pot is circled in green in this step's set of pictures.
  - The pot can be found by looking for the circular component on the driver. If you look closely its actually a circle with one flattened edge. It will be located in a corner.

- The XY and Z axis drivers should all be installed with the pot oriented at the **bottom** of the driver. See first picture.

- The filament driver should be installed with the pot oriented so that its at the **top** of the driver. See second picture.

- Please double check that you have them installed correctly before running your BoXZY.

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Step 4 — Remount fan cover.

- All thats left to do is to put everthing back the way it started.

- Keep the wires connecting to the electronics board running along either side of the board as you carefully return the fan cover to its four mounting bolts. You want to avoid allowing the wiring to restritc any airflow to the drivers.

- Once its on, be sure to give it some downward pressure so the fan cover locks into place over the bolts.

- Use your 2.5 mm allen key to tighten the the mounting bolts so the fan cover is securely in place.

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