

re3D

# Installing Lower Z-Limit Switch

(IN PROGRESS) This guide will install the Z-Limit switch on the lower part of your Gigabot. This limit switch will allow protection to overextension of the z-axis and protection of bottoming out the bed.

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## Step 1 — Intro



- This procedure is to install the Z-limit switch on a fully assembled Gigabot.

## Step 2 — Remove leveling block



- Remove leveling block on the back left side of the bed, by removing two M5x12 screws that attach to the left bed side plate.
- Detach the leveling block from the bed side plate with the entire assembly intact (see photo). Set aside leveling block assembly.

### Step 3 — Replace leveling block



- Replace the existing leveling block with the supplied Limit Switch Leveling Block (L-shaped version).
- Ensure new assembly looks like photo.

### Step 4 — Re-install Leveling Block



- Install the M5x45 screw (lightly tighten).
- Install the M5x12 screws as shown. Tighten.
- Ensure the M5x45 is straight, then tighten against the bed rail.

## Step 5 — Install other M5x45



- Place M5x45 screw into outer side of Limit Switch Leveling Block.
- Ensure screw head is inserted from bottom, and nut is below leveling block.

## Step 6 — Install Z-limit Switch



- Install the Z-limit switch by placing the two M2 screws (from the outside) through the side plate, white spacer, limit switch, lock washers and nuts provided.

## Step 7 — Route Wiring



- Install small length of shallow panduit to bed side plate.
- Connect the red wire to the middle of the limit switch.
- Connect the black wire to the pivot end of the limit switch.
- ⓘ Note: Polarity of wiring does not matter for limit switches. The normally open circuit is closed when contact is made.
- Route wiring through installed panduit, existing panduit, and through an open grommet in the electrical box.
- Connect red and black wires to the Z-max connectors on the Azteeg (red in middle of 3, and black on far right), as shown.
- ⓘ Note: Viki cables are not connected in photo. There is no need to disconnect Viki cables in this procedure.
- Close electrical box and panduit.

## Step 8 — Install firmware to support +Z-limit switch



- (see wiki steps - Patrick to add?)

## Step 9 — Level the bed



- Screw in M5x45 to its upmost position.
- Use existing bed leveling procedure to bring bed to just above Z-motors.
- Command Z-motors approximately 5mm up above Z motors.
- Unscrew M5x45 so that it contacts and trips limit switch.
- Home Z axis as per leveling procedure.

Have questions? Need help? Email [support@re3d.org](mailto:support@re3d.org)