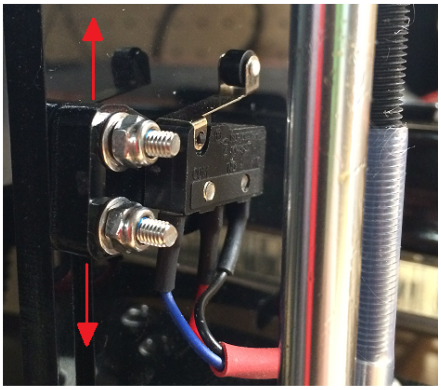
# AdjustableZEndstop

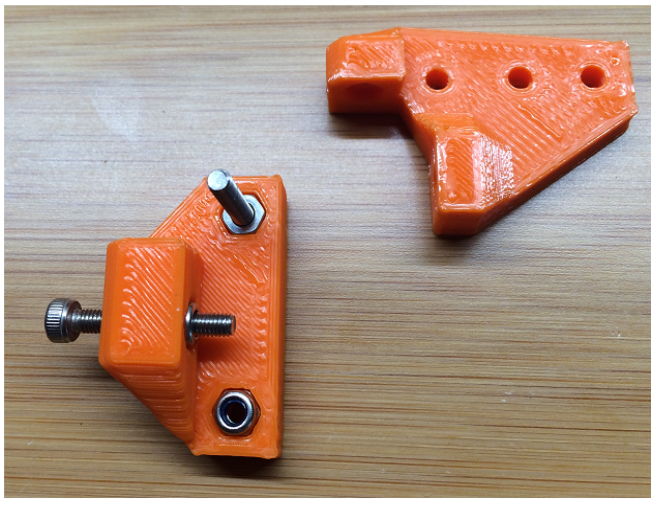
*Author:* *Jeremy Bruck*
*Date:* *Sept 6, 2014*

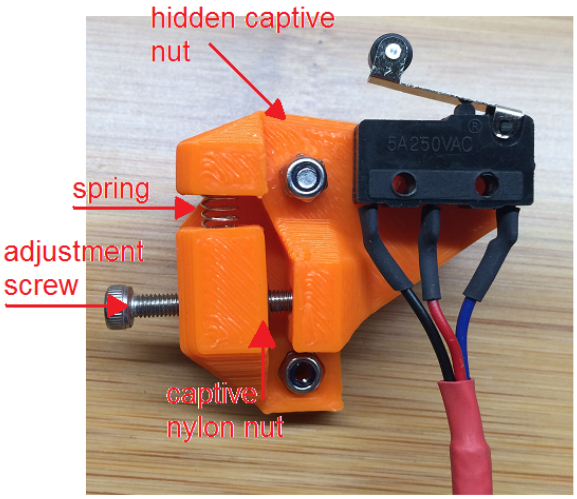
The original Z-axis Endstop of the RepRap G3D (Prusa i3 design) is a simple plate that adjusts up and down. The screws for this plate ride within a slot in the frame. This plate easily binds and twists during adjustment thus limiting the ability to fine-tune the height adjustment.


Original Z Endstop

This replacement Endstop uses a spring loaded pivot arm that is adjusted by turning a bolt that protrudes from the side. It provides easy access to fine-tune the adjustment of the Z height endstop.

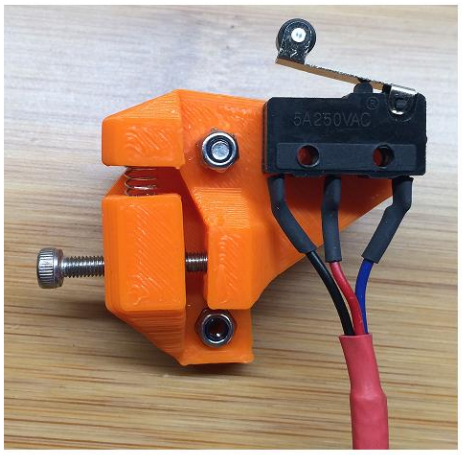
The design is comprised of two components. There is a bracket that mounts to the original frame slot with two bolts. The top bolt is leveraged as the shaft for the pivot arm. A small spring is used between the two pieces to retain tension on the arm against the adjustment screw. All of the nuts are held captive in these plastic parts. The switch is screwed from the back of the pivot arm and is threaded directly into the switch plastic.


Captive nuts and pivot bolt

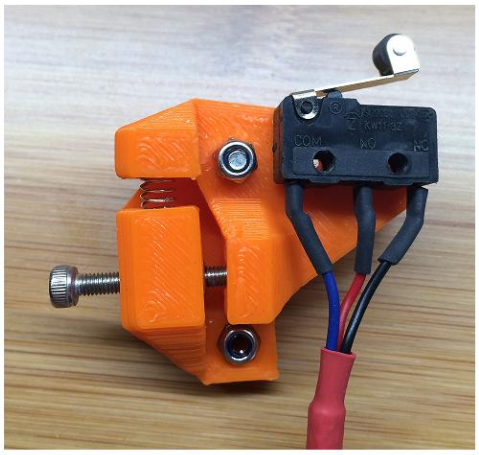


Adjustment structure

For coarse adjustment, place the switch arm away from the pivot point.  For fine adjustment, place the switch arm close to the pivot point.



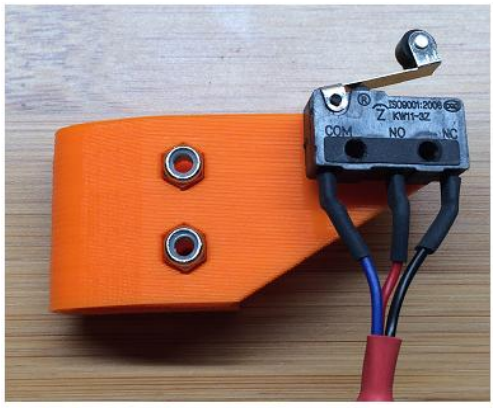
Fine adjustment: switch lever on left



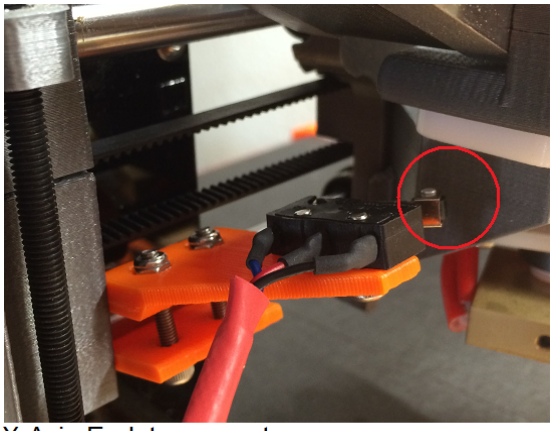
Coarse adjustment: switch lever on right

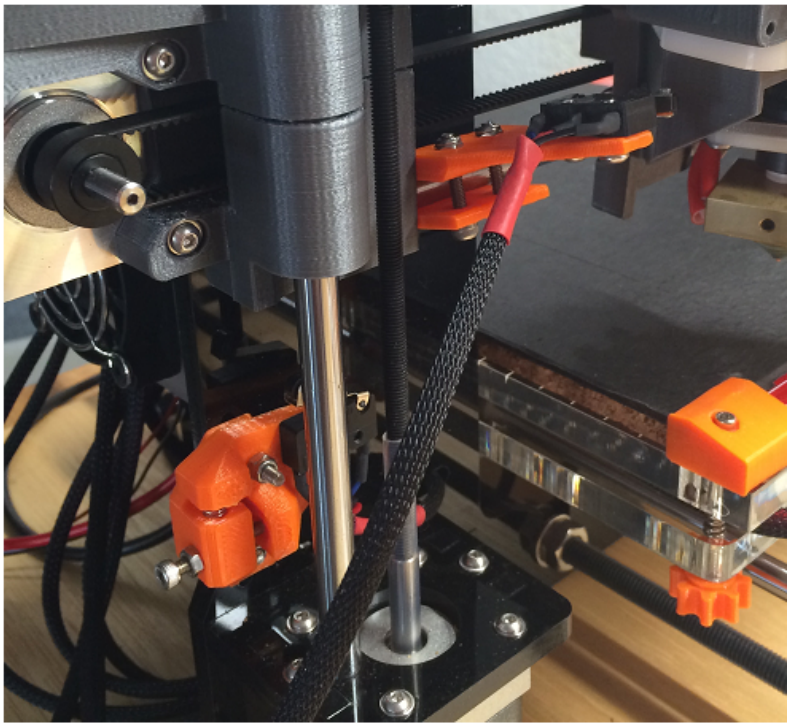
Optionally you can use a jamb nut on the adjustment screw to secure your setting but I have not found it to be needed while using a nut with nylon insert..

The stock x-axis endstop mount had to be relocated to accommodate the z-axis solution.  A simple mount was made to attach to the x-axis rod.  The position of the switch aligns very well with the flat surface on the hot end mount.



X-Axis Endstop mount


X-Axis Endstop mount



Endstops installed

**KEYWORDS**

Prusa i3
Endstop
Z-Axis
X-Axis
RepRap G3D
Adjustable

**LINKS**

Printer: http://gadgets3d.com/index.php?route=product/product&path=73&product_id=93