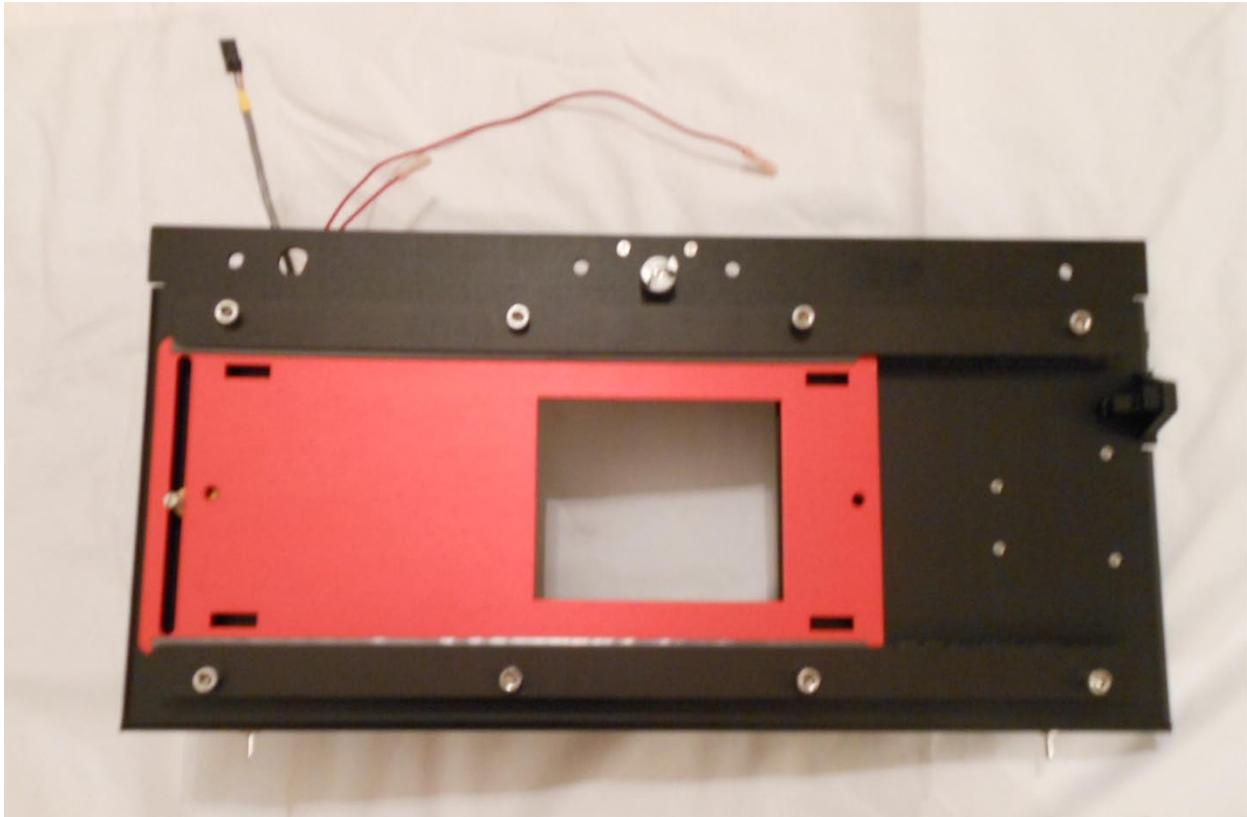


The B9Creator™

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Visual Assembly Guide

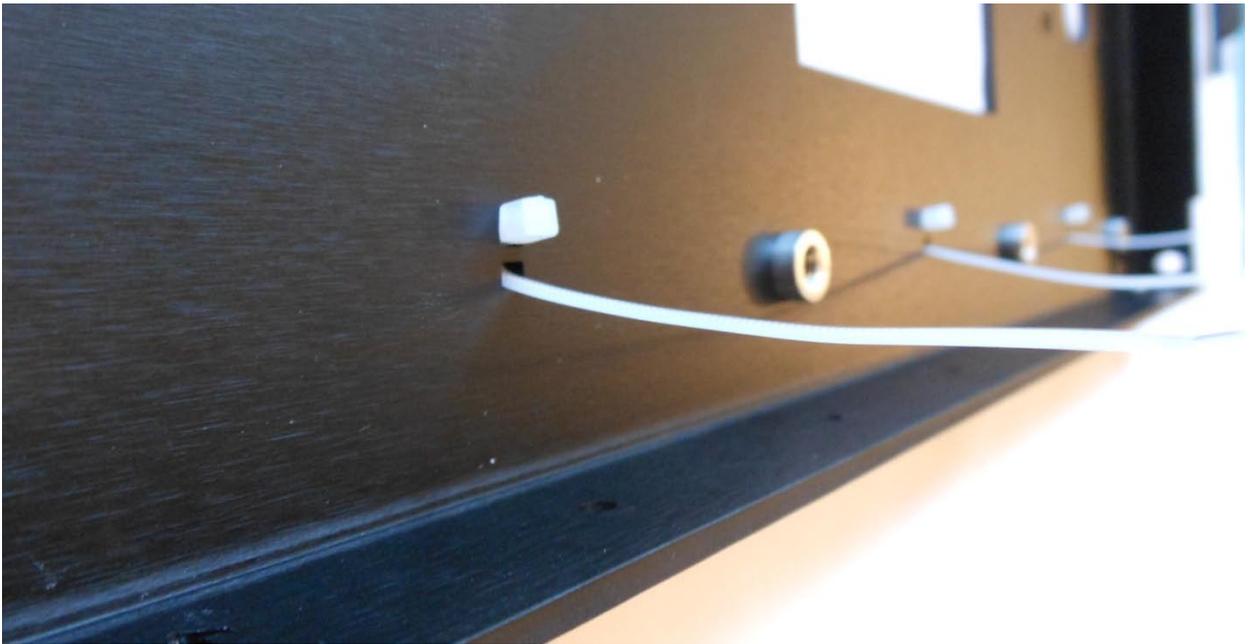
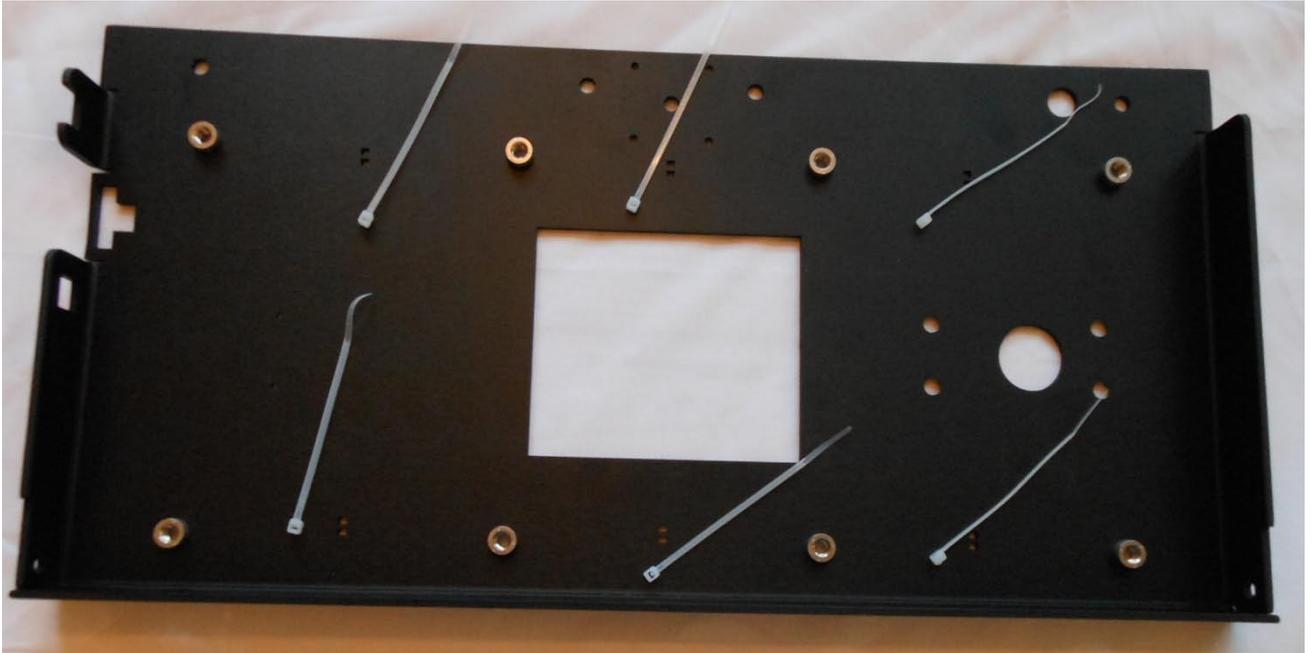
Step 2 - X Axis (XA) Assembly



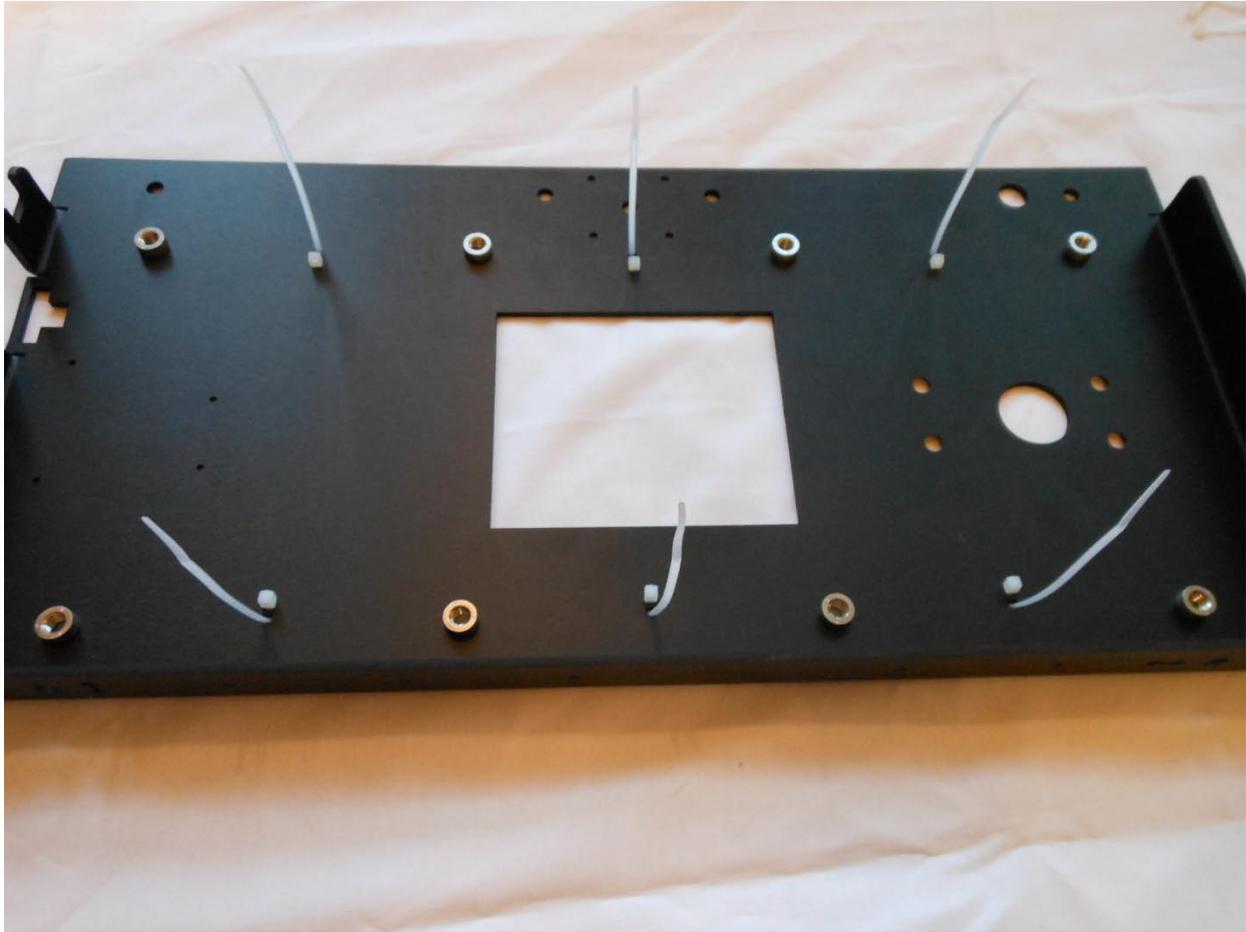
Completed XA (Horizontal Slide Base) Assembly

[View an online video of Step 2 - X Axis Assembly](#)

Wire Harness Restraints

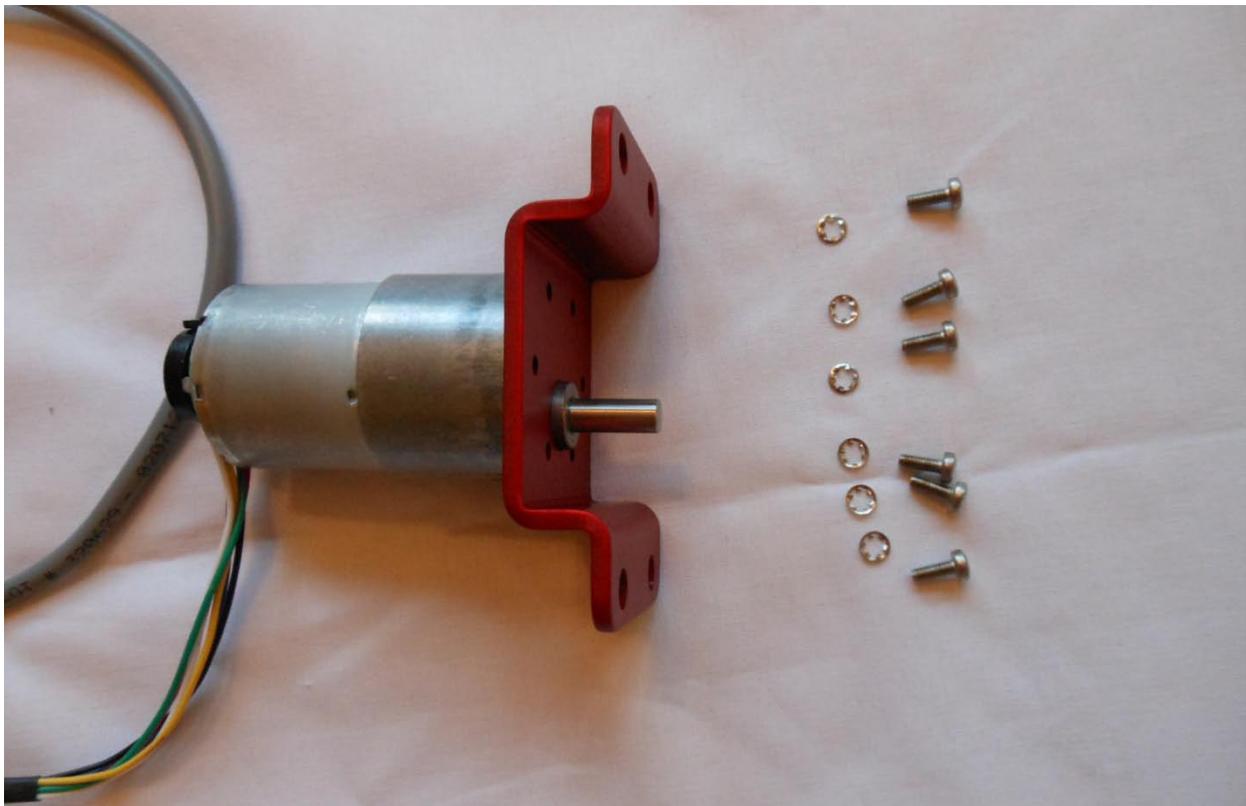


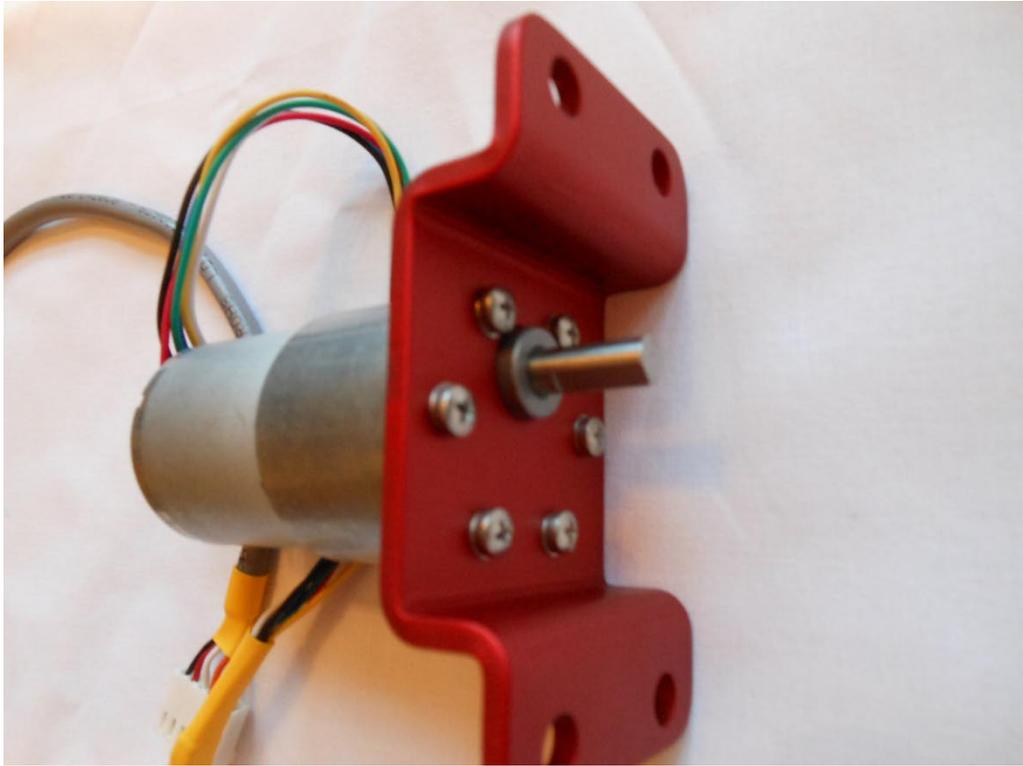
These six "zip ties" will be used to secure the wiring later on.

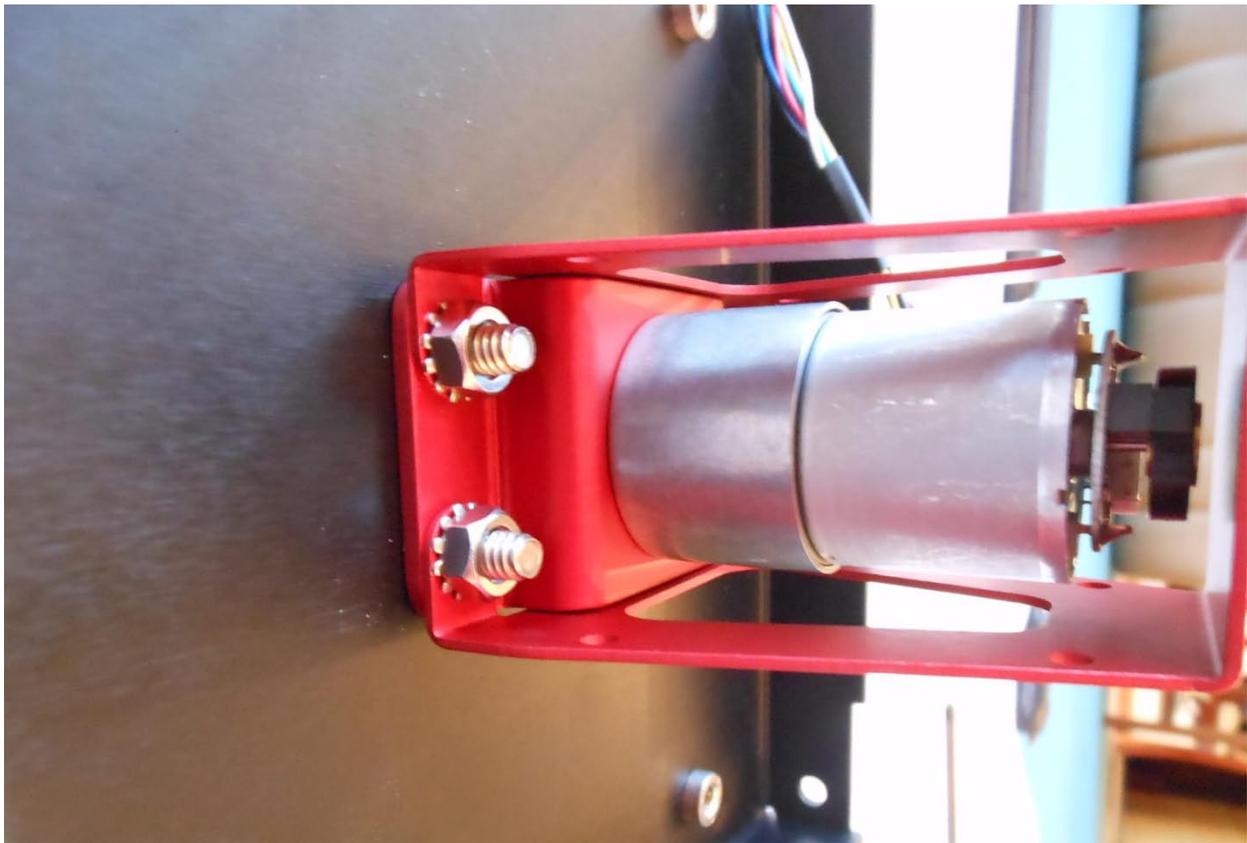
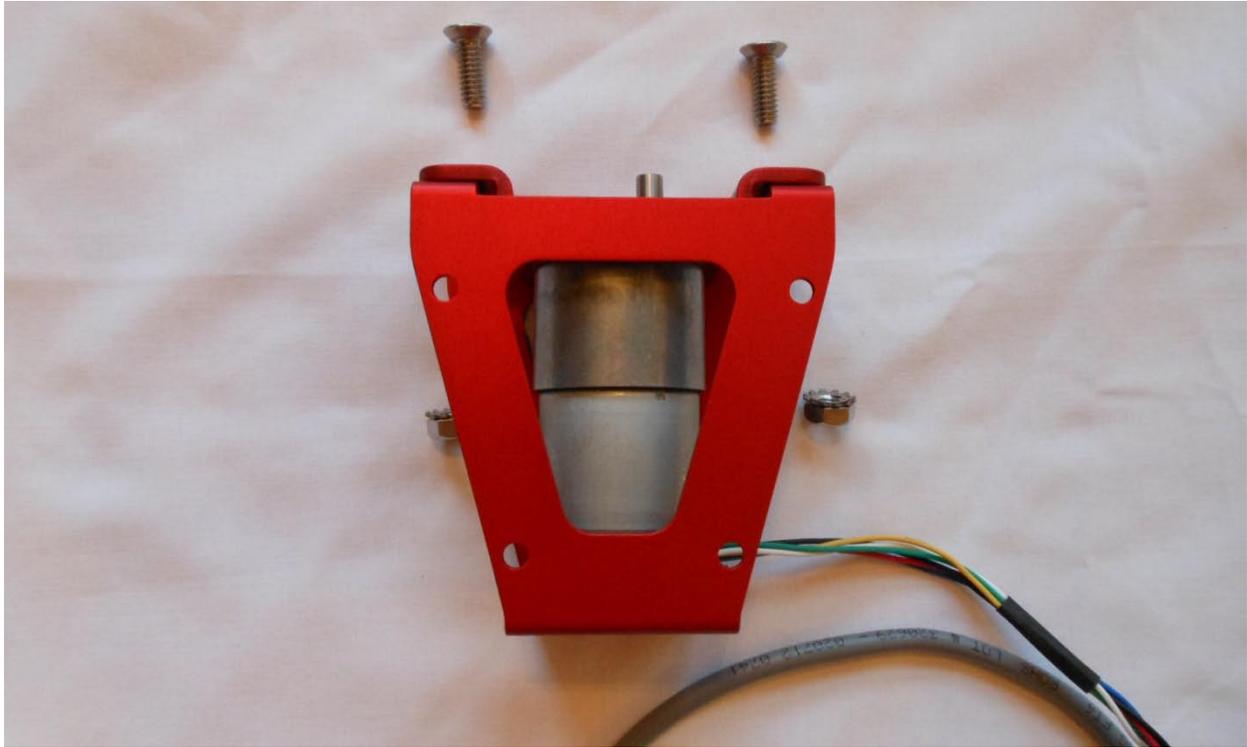


Bottom View - All six in place, note how they are positioned with long ends towards the outside edge to make it easier to tighten them later.

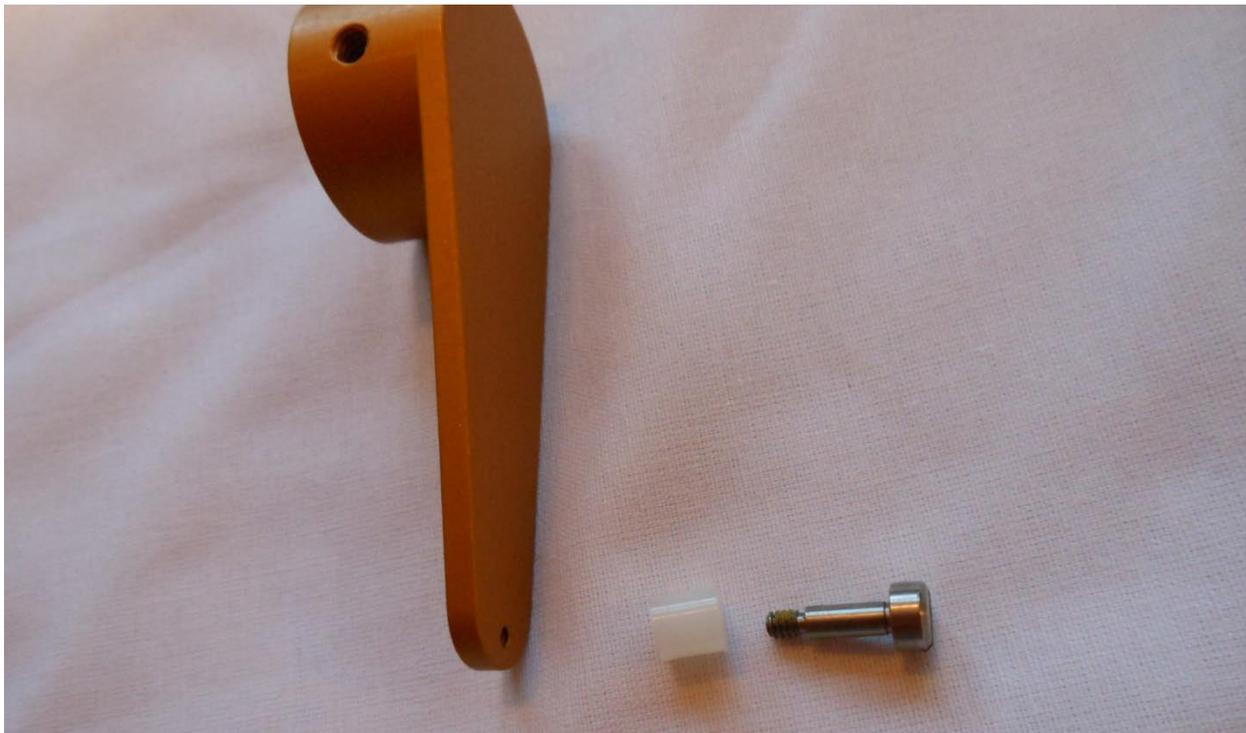
Mounting the X Axis Vat Slider Motor



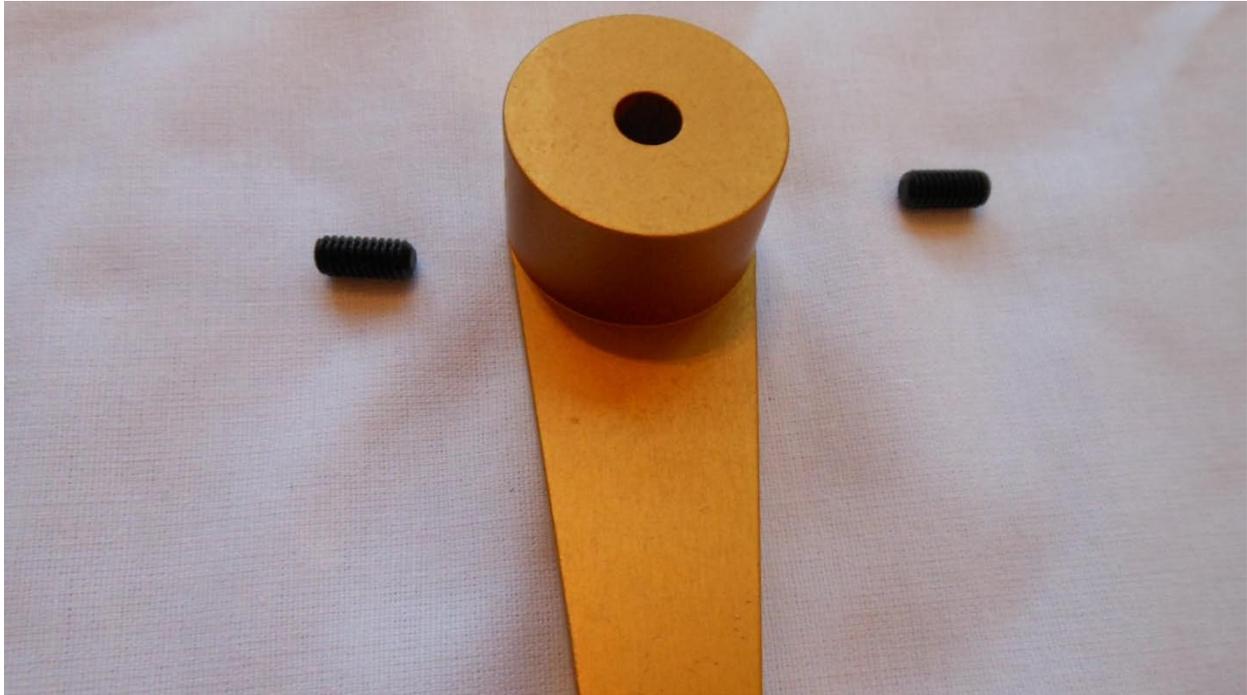




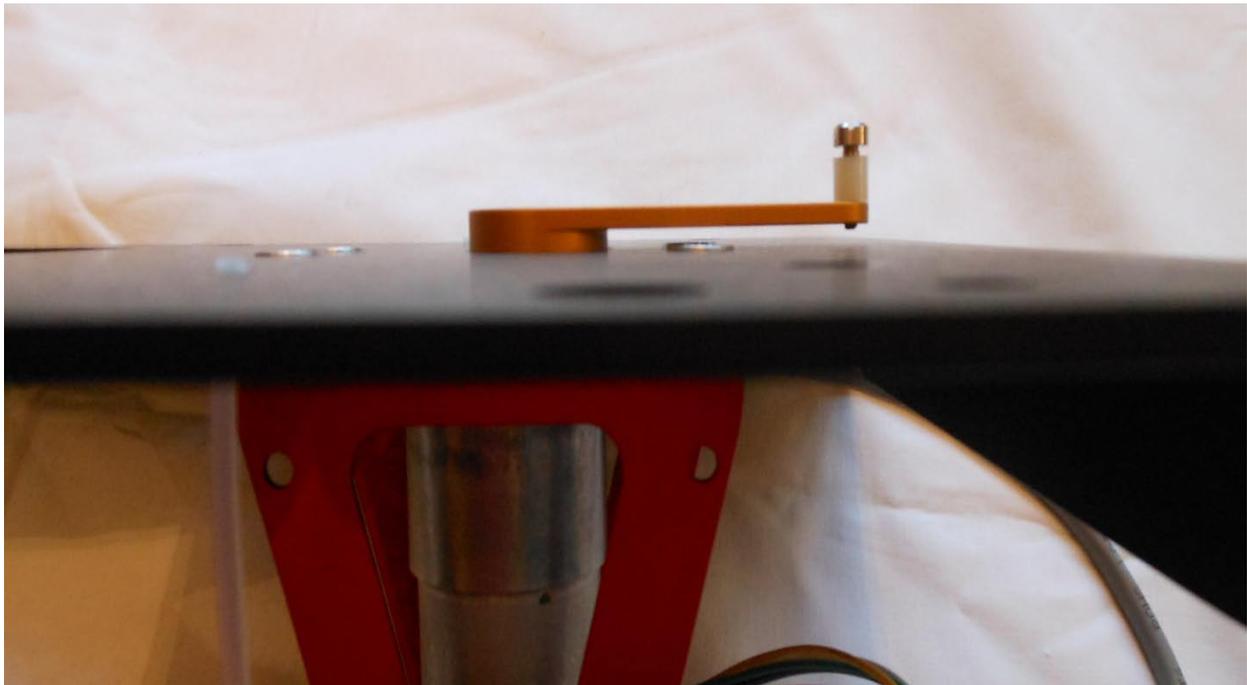
Note the Motor Guard positioning



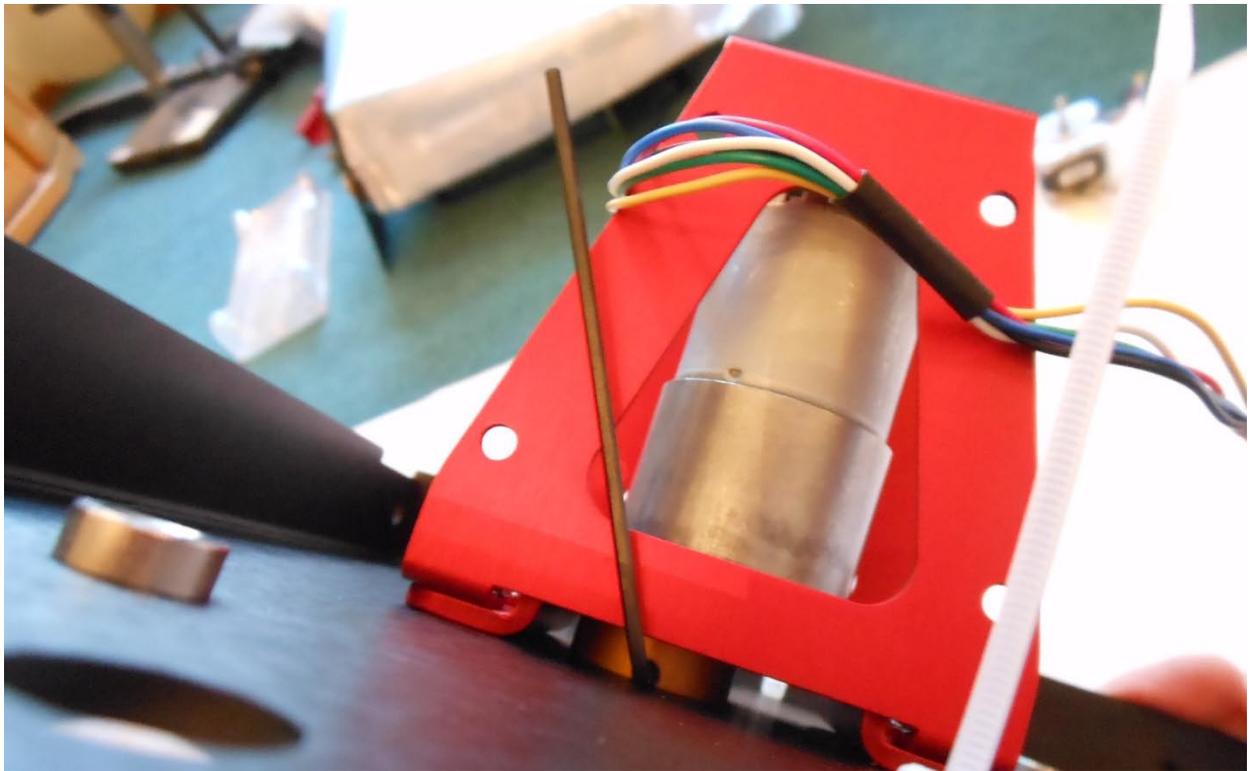
The nylon spacer should rotate freely on the screw's shoulder after it's been tightened securely.
TIP: Use a drop of lightweight lubricating oil on the screw's shoulder to lubricate the nylon spacer.



Insert the two set screws until they are flush with the outside surface.



Correct spacing between the motor and the surface. Note that the motor shaft has a "flat", which should be aligned with one of the two set screws in the motor arm.

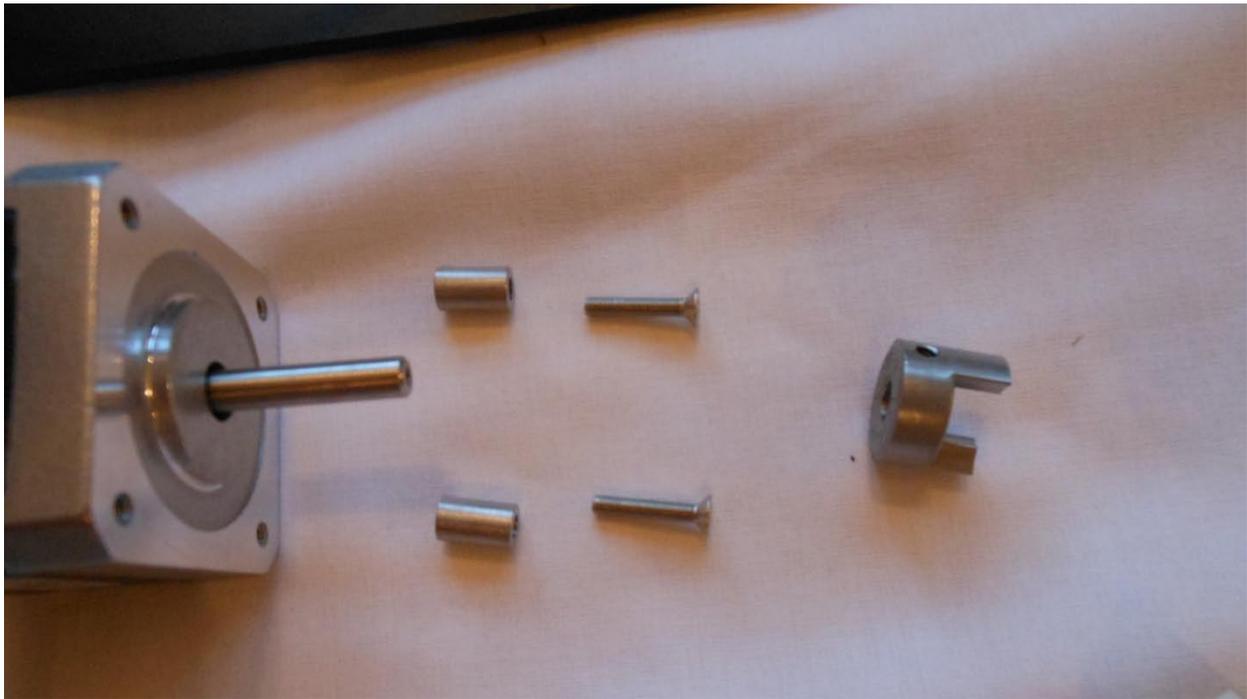
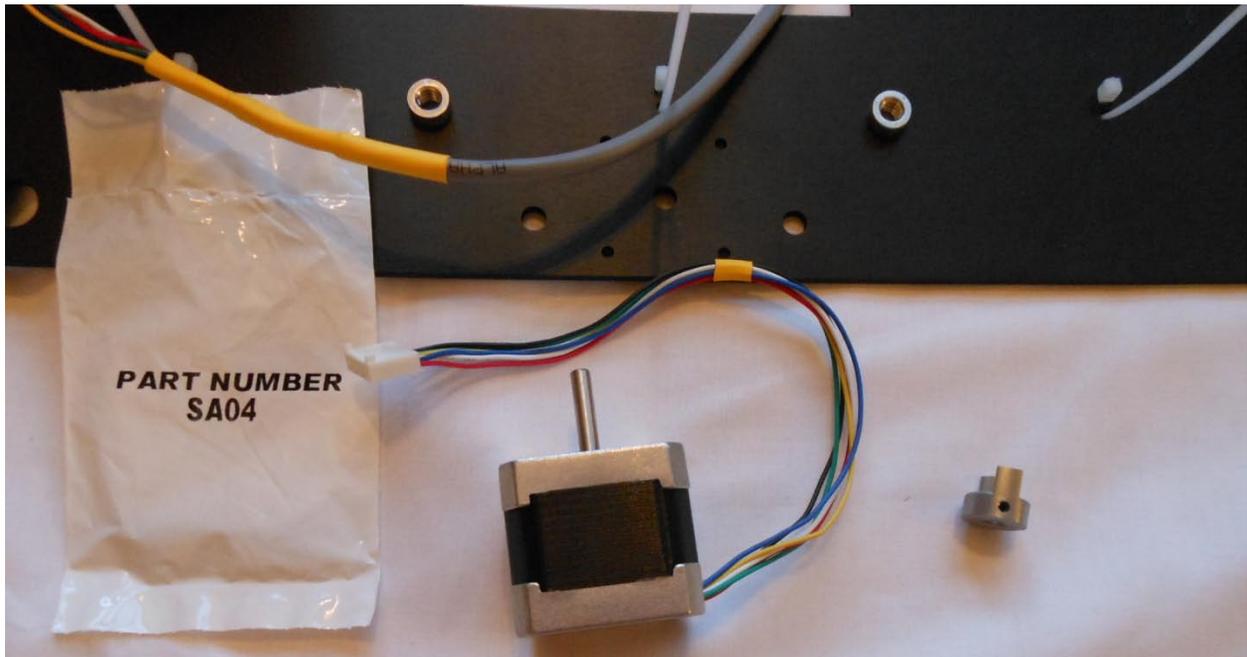


Use the provided hex wrench to securely tighten BOTH set screws.

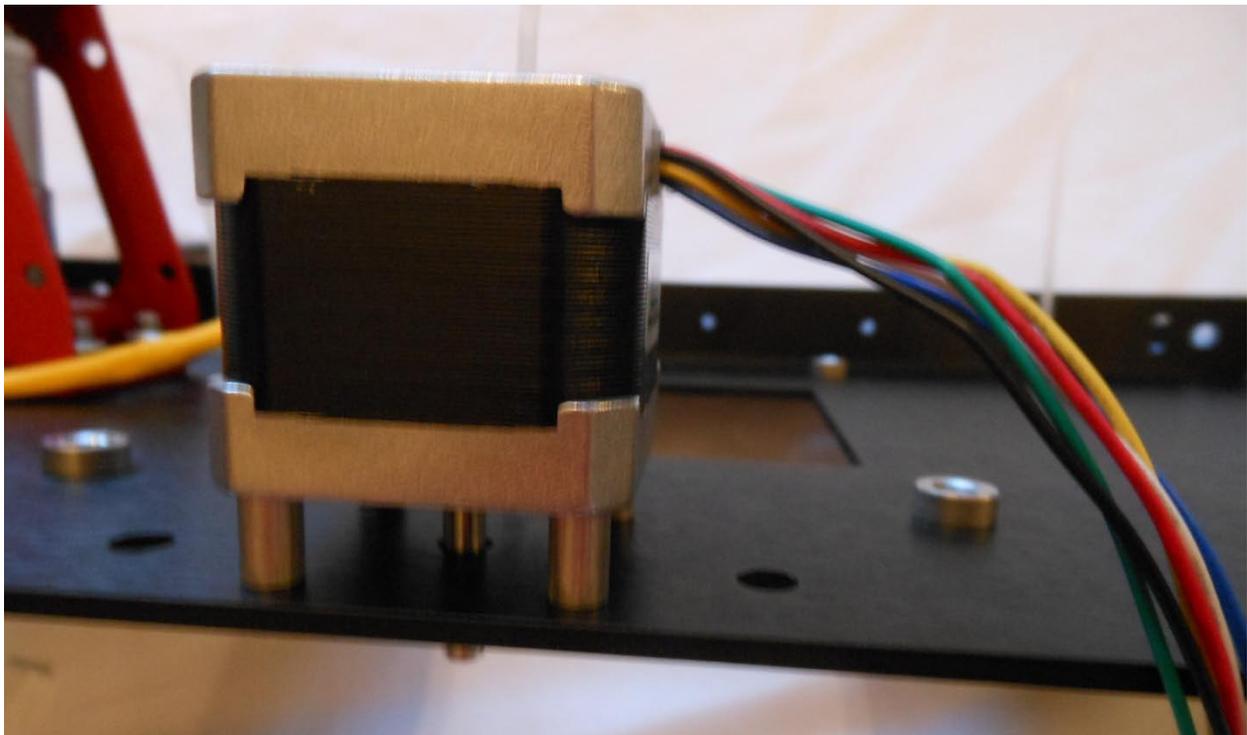
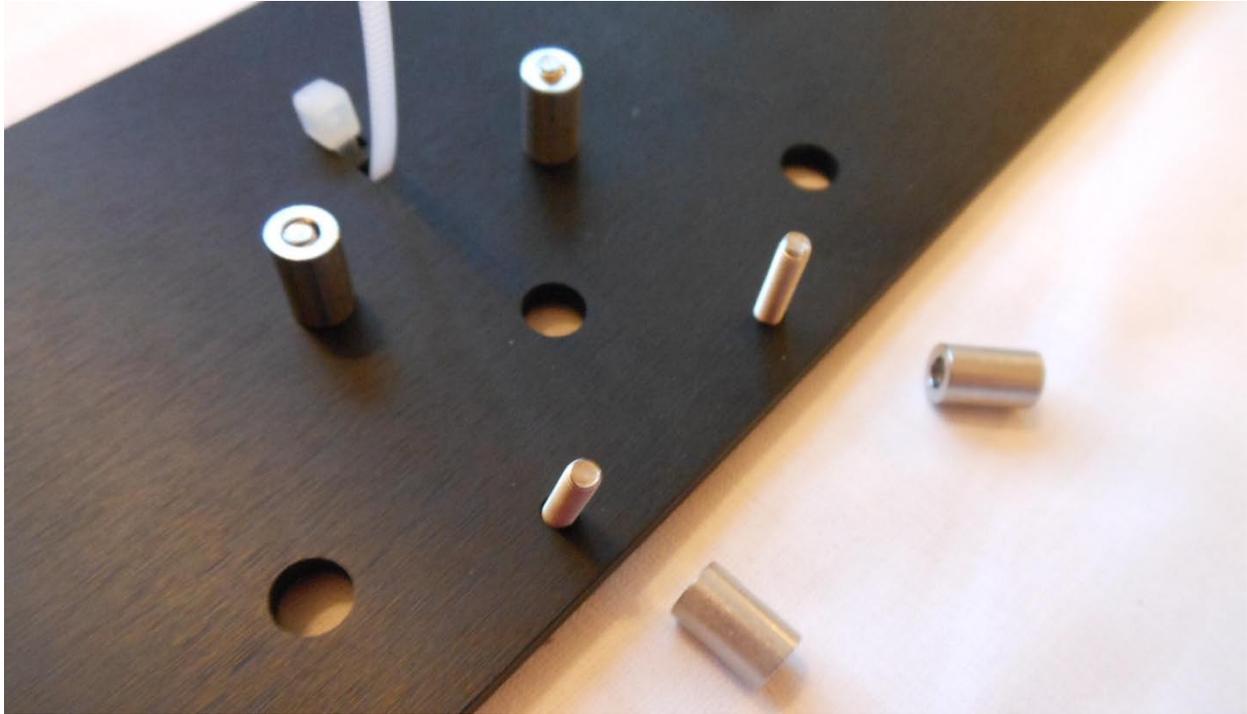


Gently turn the arm to align the end towards the left side as shown.

Mounting the Z Axis Stepper Motor



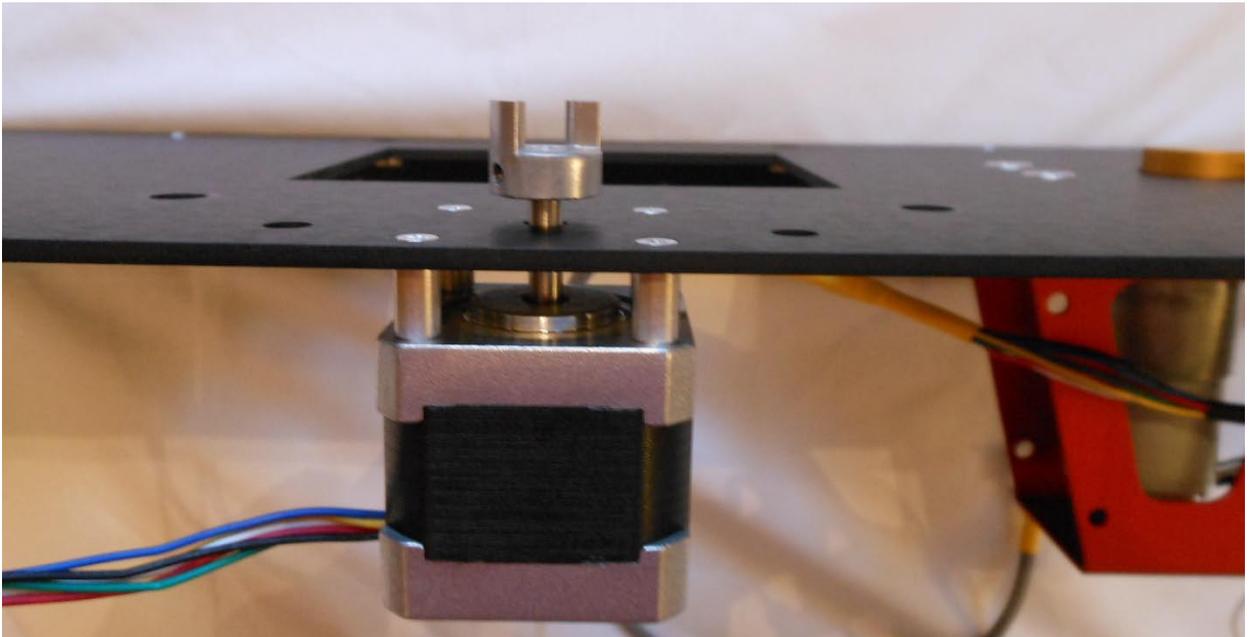
The Z Axis stepper motor is suspended under the X Axis plate using the four spacers.



Note wire alignment, tighten all 4 screws securely.



Use the hex wrench to secure the motor coupler. Motor shaft should be flush with couper as shown.



Z Axis Stepper Moto Installed

Attaching the nylon glides to the Vat Table



TIP: Use a screwdriver to hold open the gap in the nylon glide to aid initial application. Use a mallet or soft hammer to tap the glide into place, working slowly from the starting end until finished.



Both glides attached - Congrats! That was probably the most difficult step!

Attaching the Vat Table Slide Track

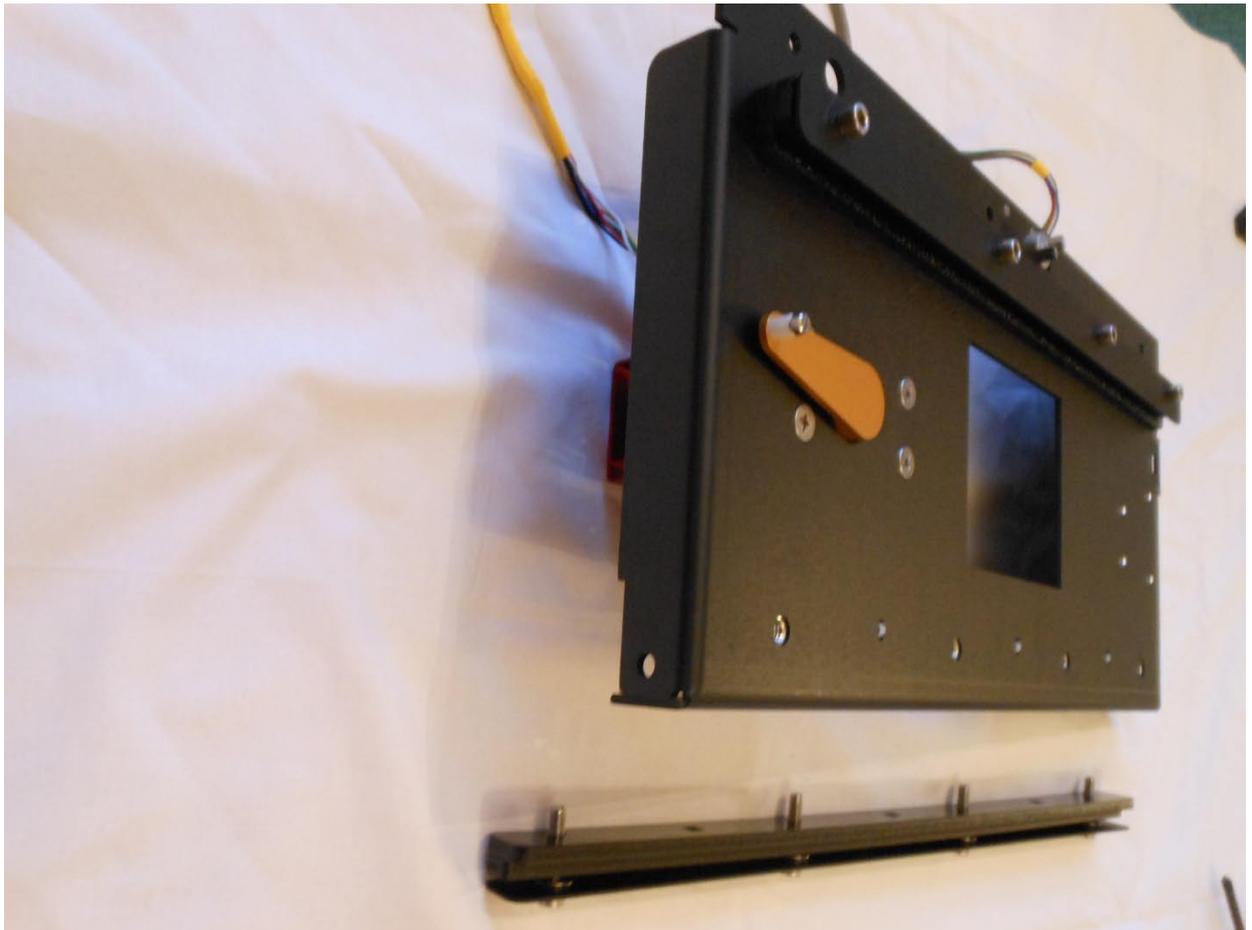


Note that these parts are upside down in this photo.

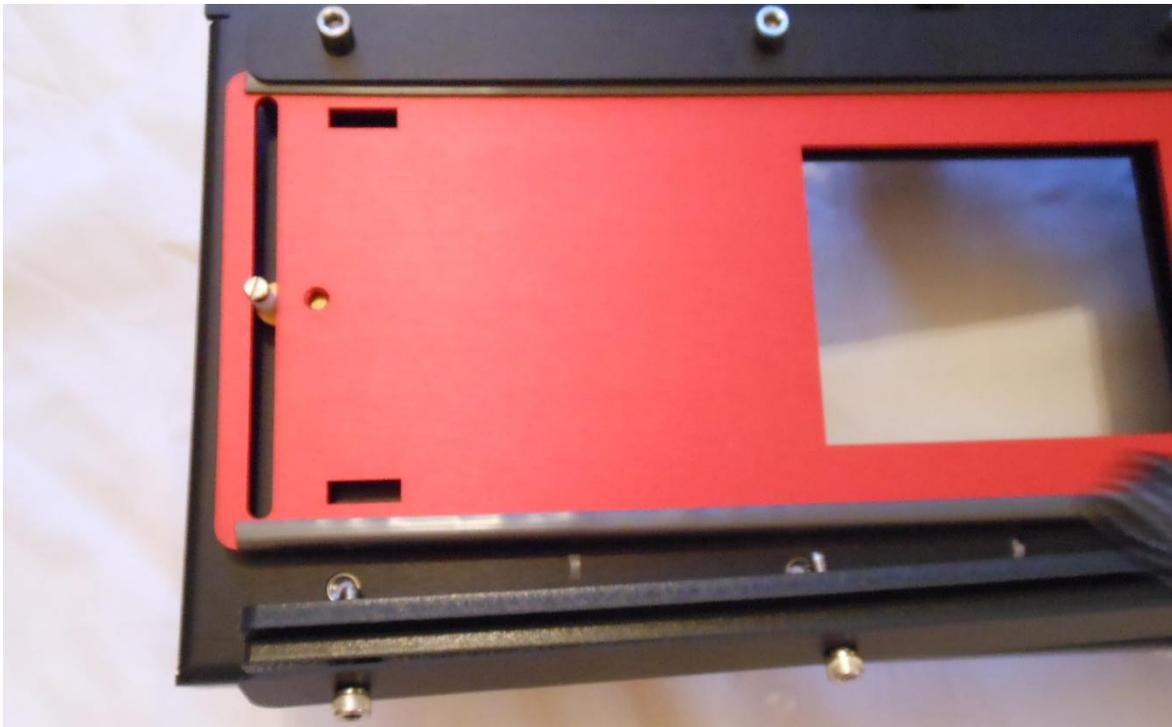




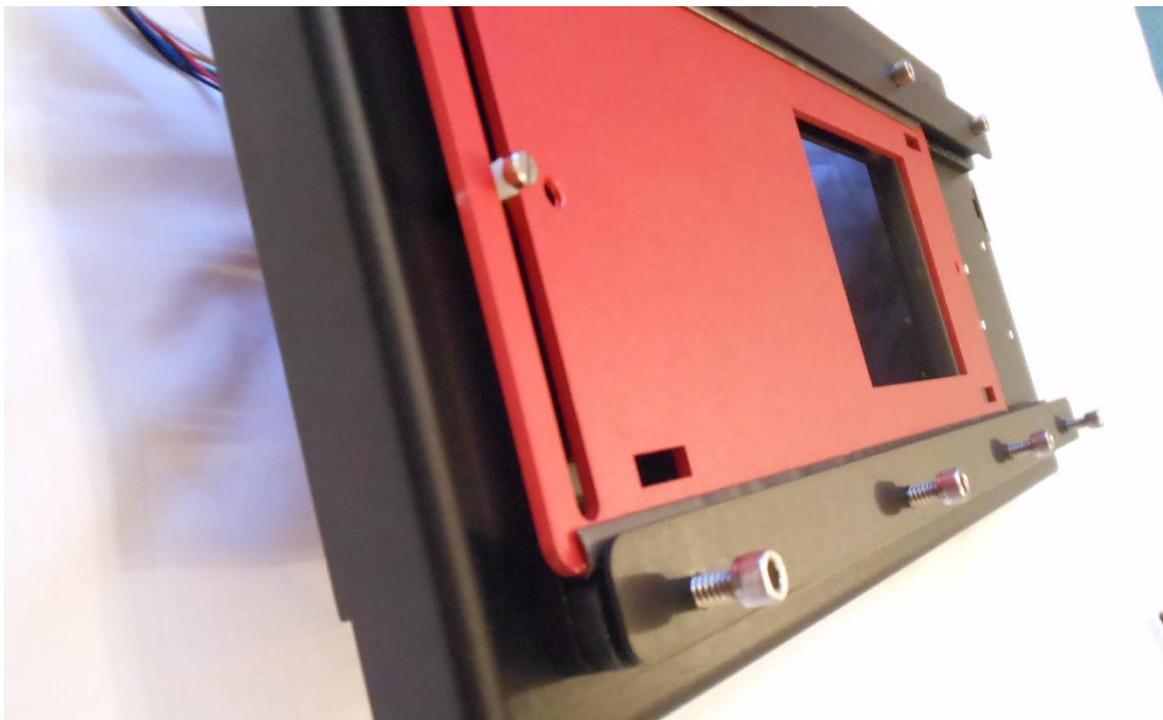
Both Tracks ready to attach.



Back track in place, screws only hand tightened

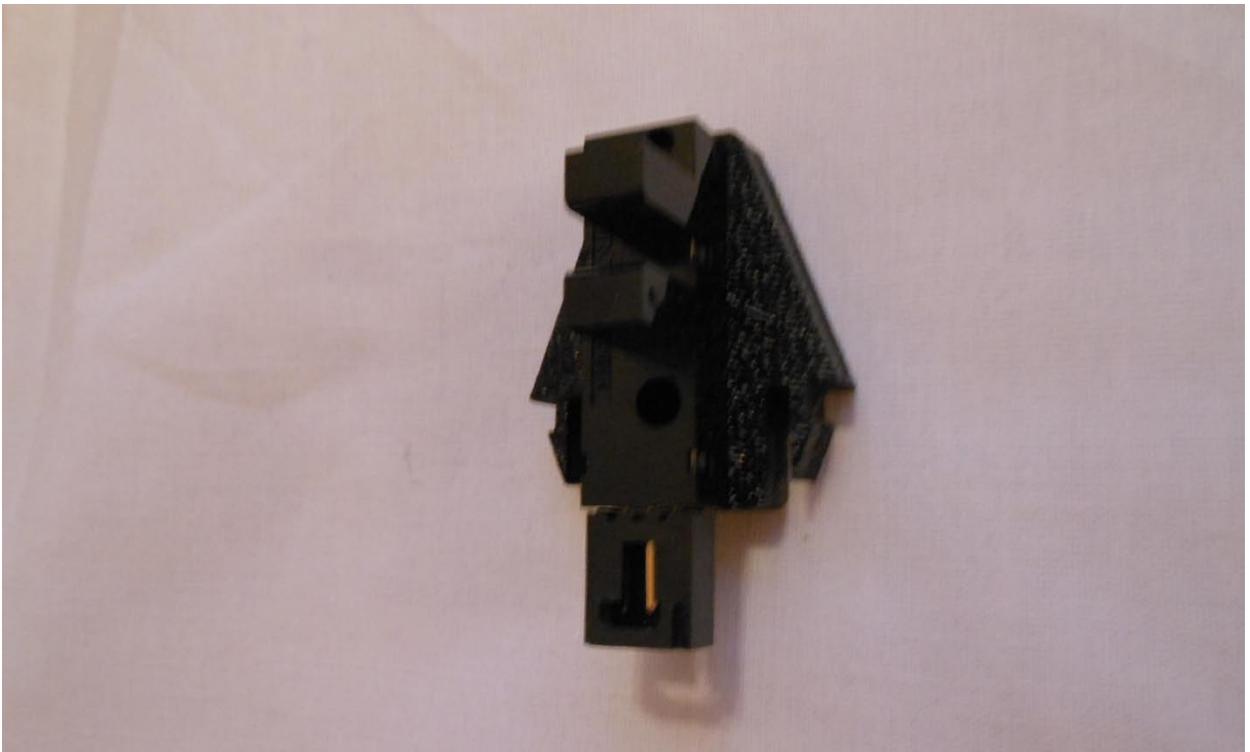
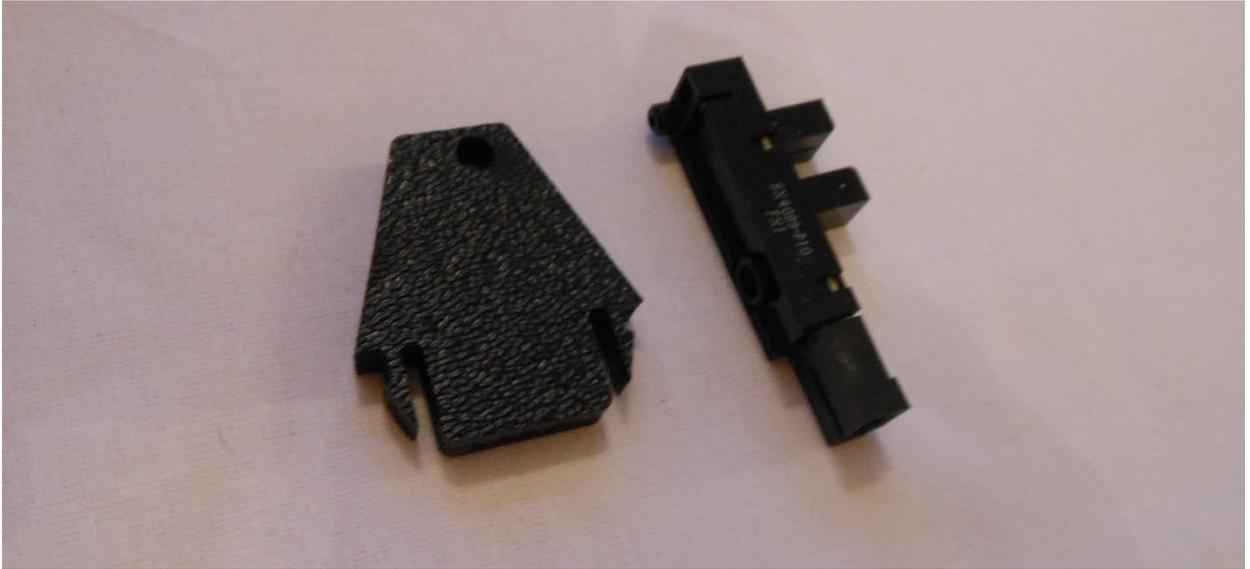


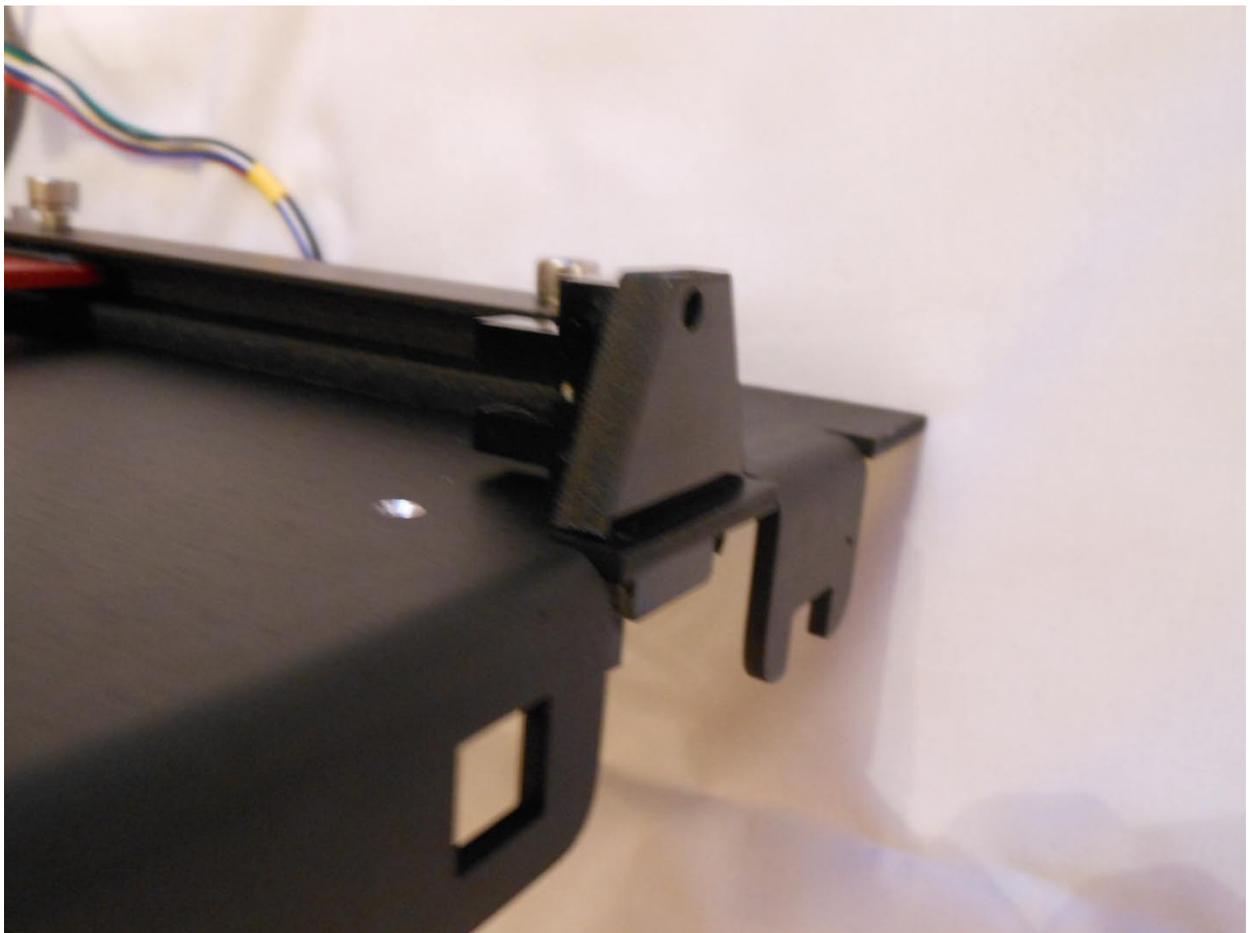
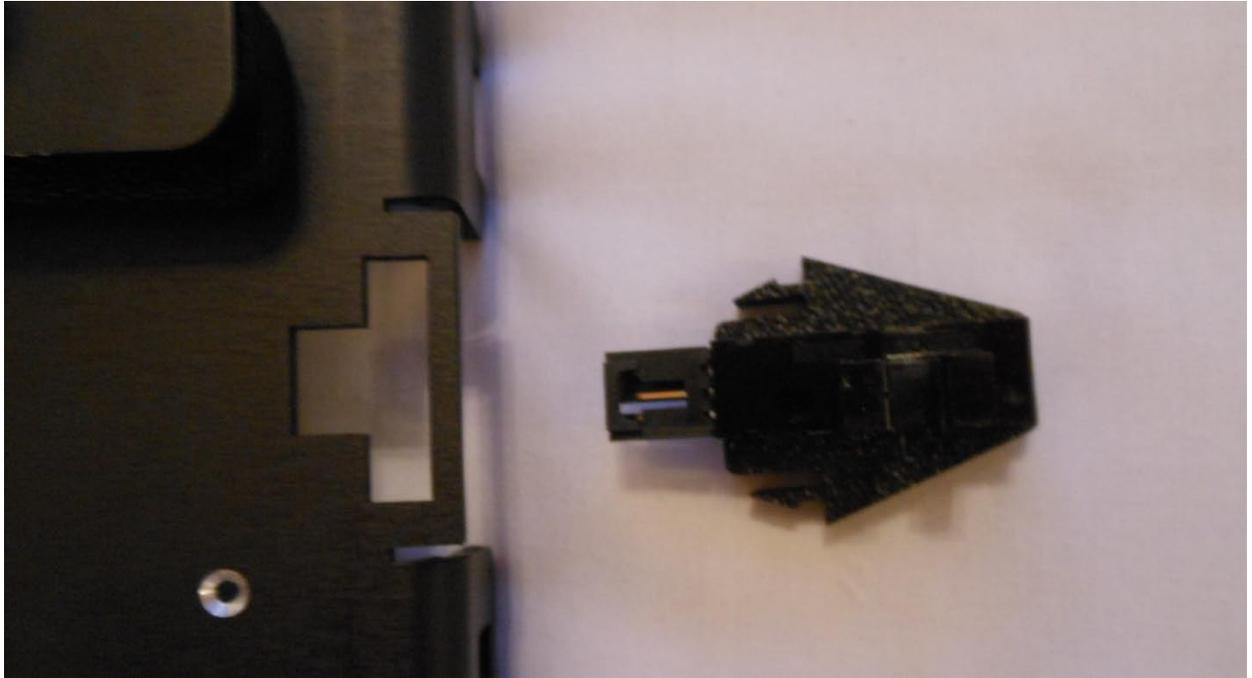
Vat Table in place, note motor arm with nylon spacer in table slot. Front track ready to mount.

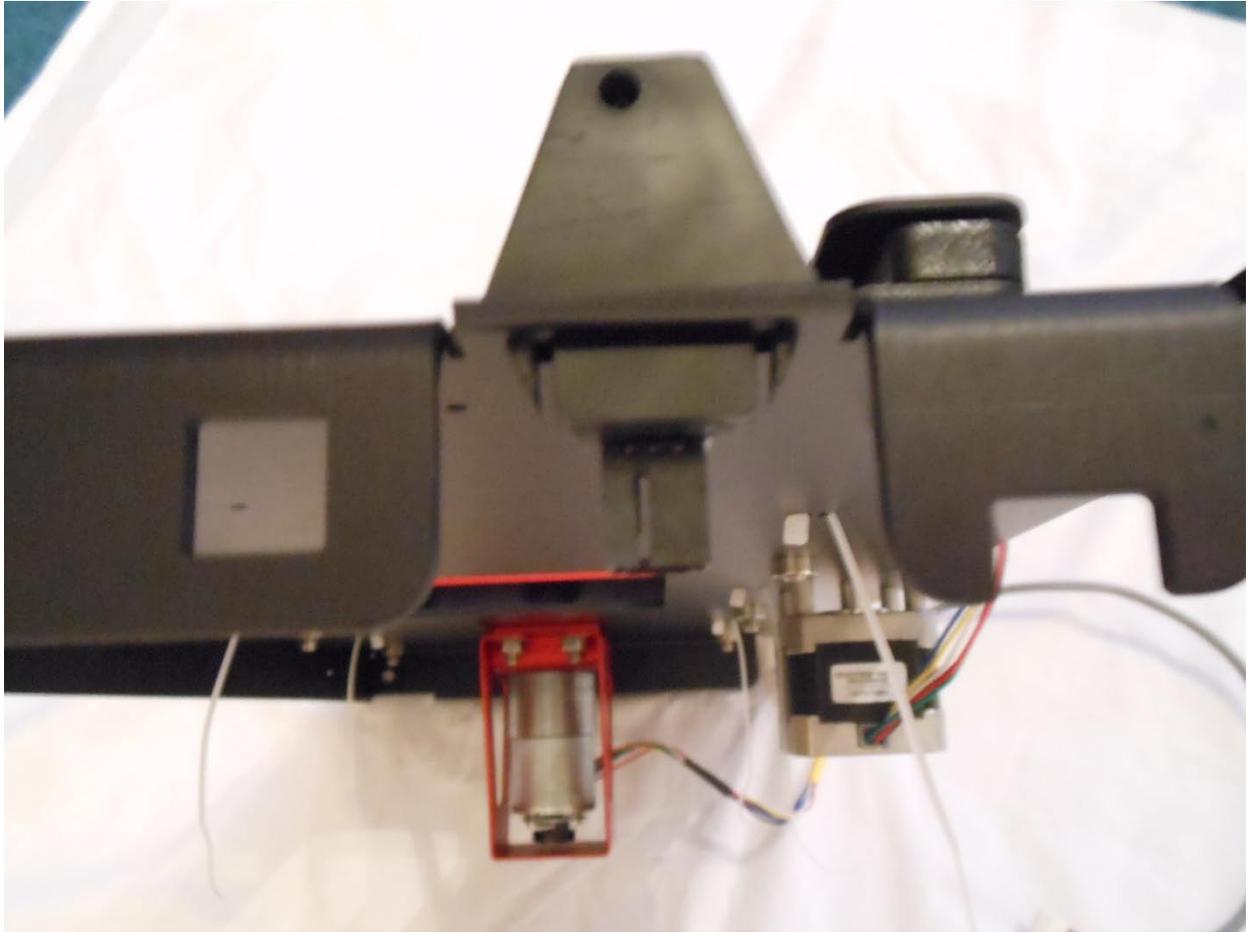


Front track in place, ready to tighten screws. Use a hex wrench to tight the four screws on the "slot" side and the two on opposite side securely. Only hand tighten the other two screws as they will be removed later when we attach the sweeper assembly.

Attaching the Vat Table Home Sensor

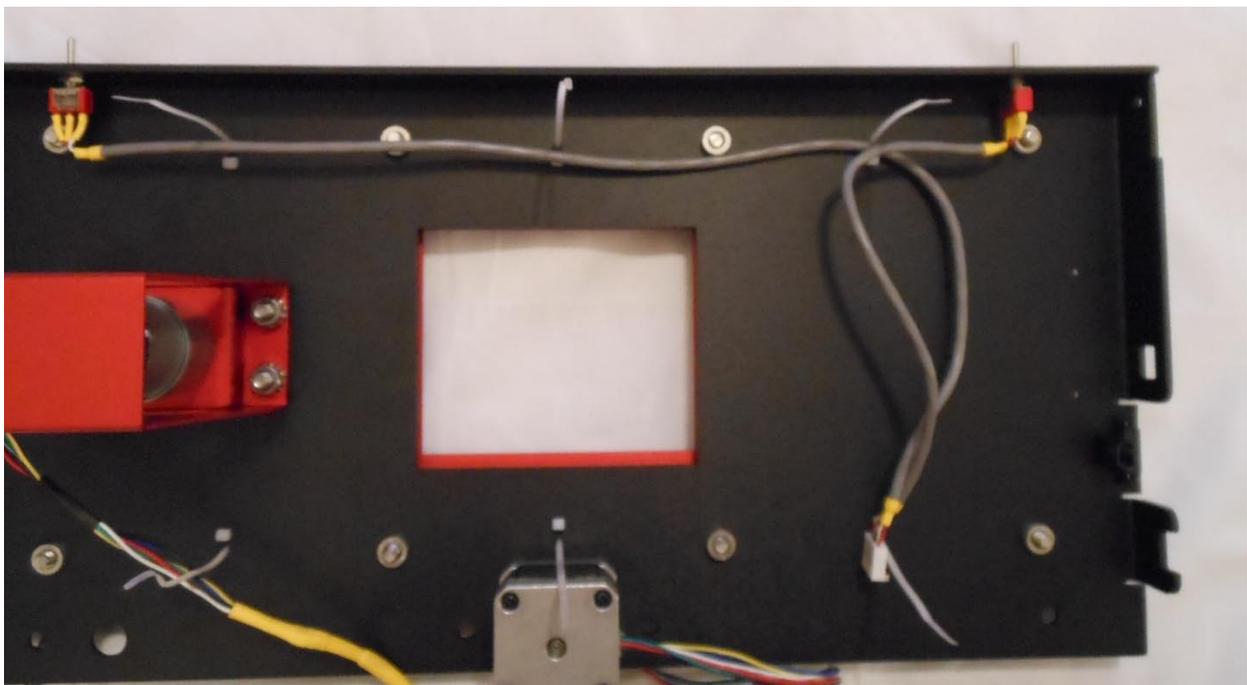


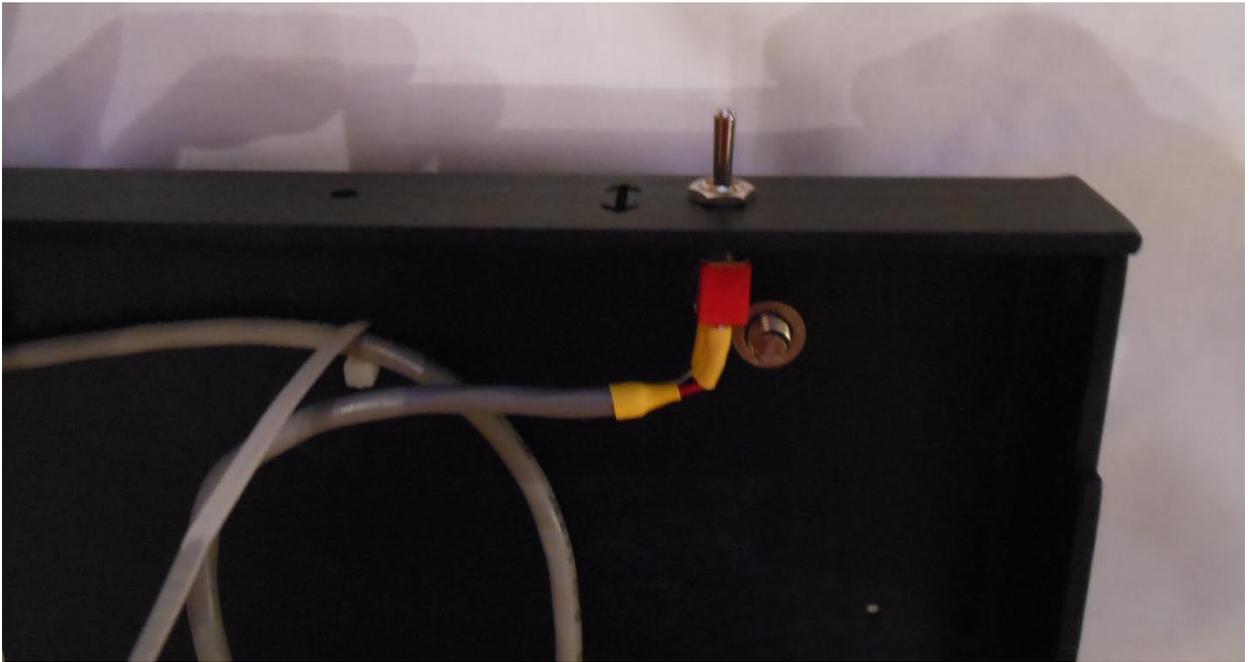


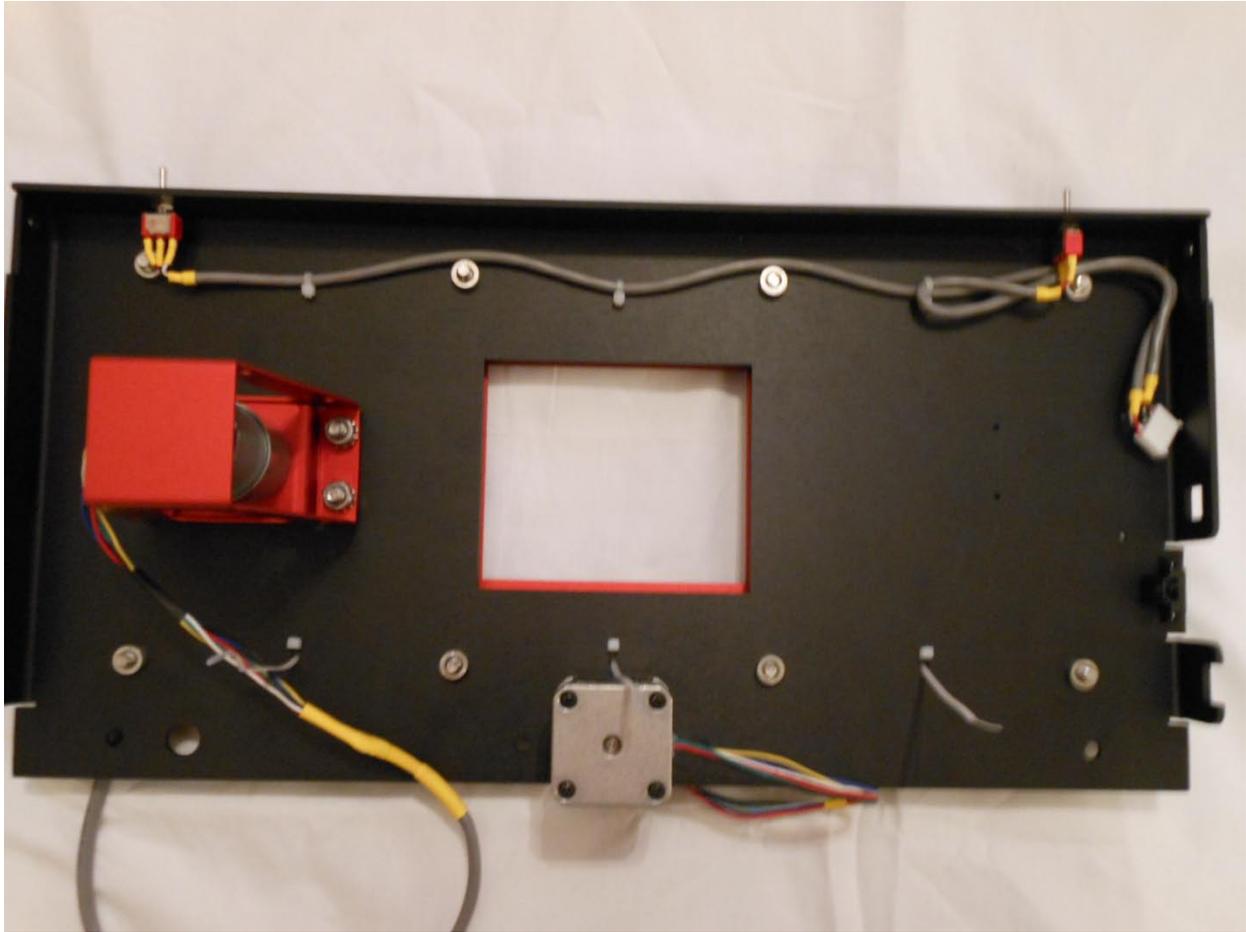


Vat Table Home Sensor snapped into place.

Attaching the Manual Positioning Toggles and Harness

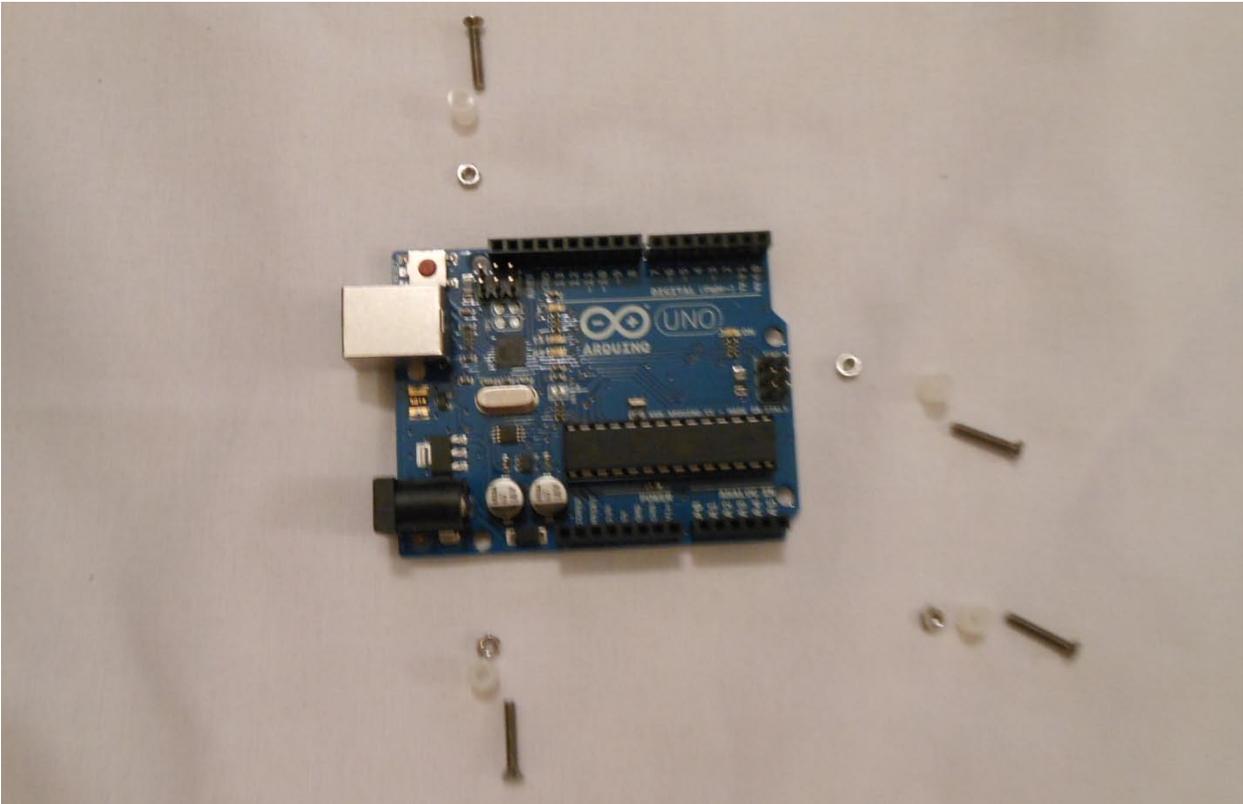


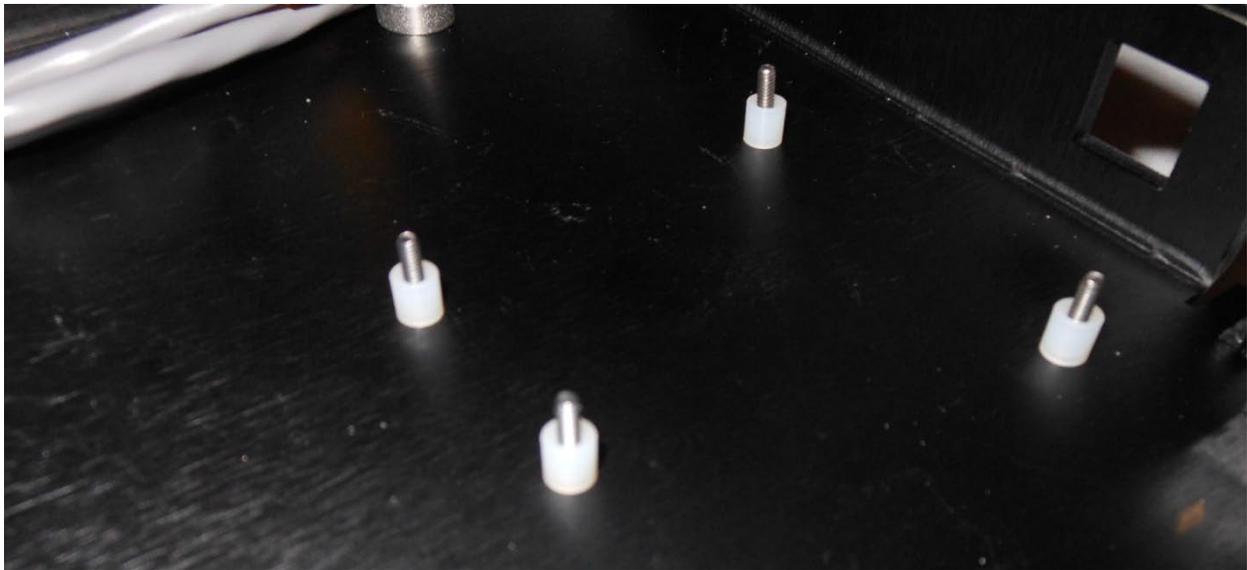




Complete, note the use of the 3 front zip ties to hold the harness in place. Excess has been clipped off.

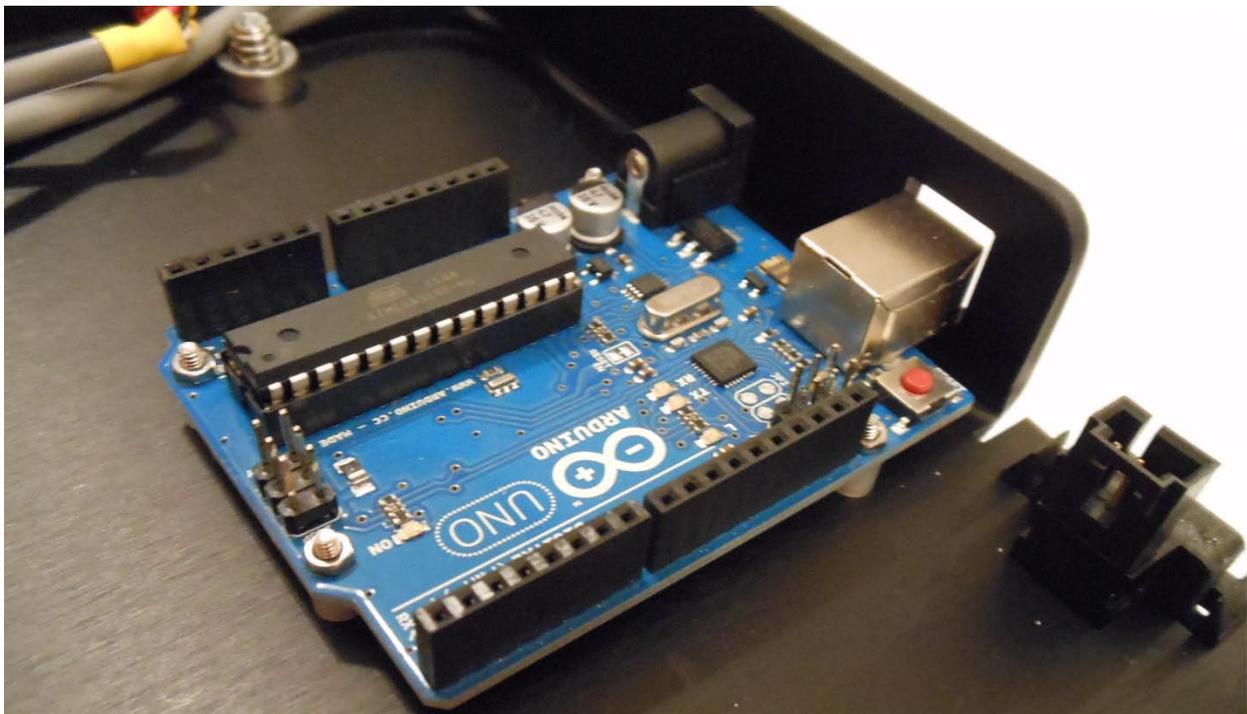
Attaching the Arduino UNO & B9Creator Shield PCB





Four screws inserted from the top with nylon standoffs in place.

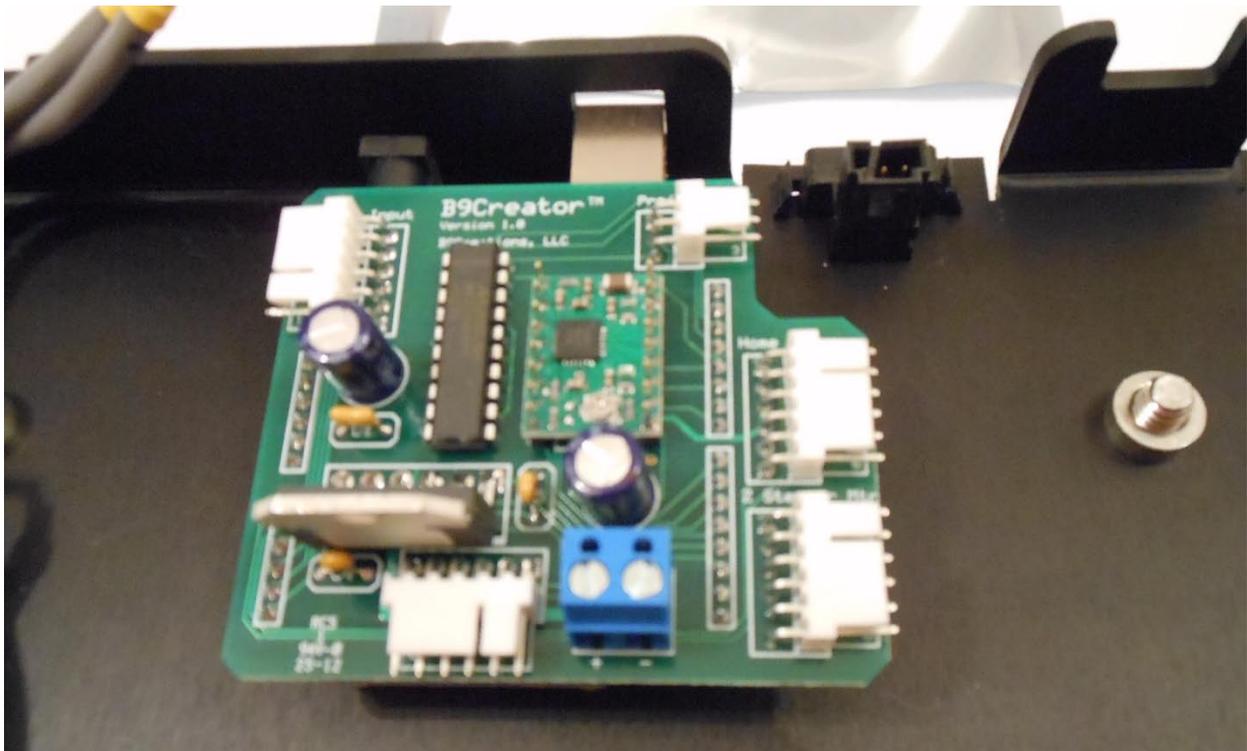
TIP: Use tape to hold the screws in place during this step.



Mounted with four nuts securely tightened.

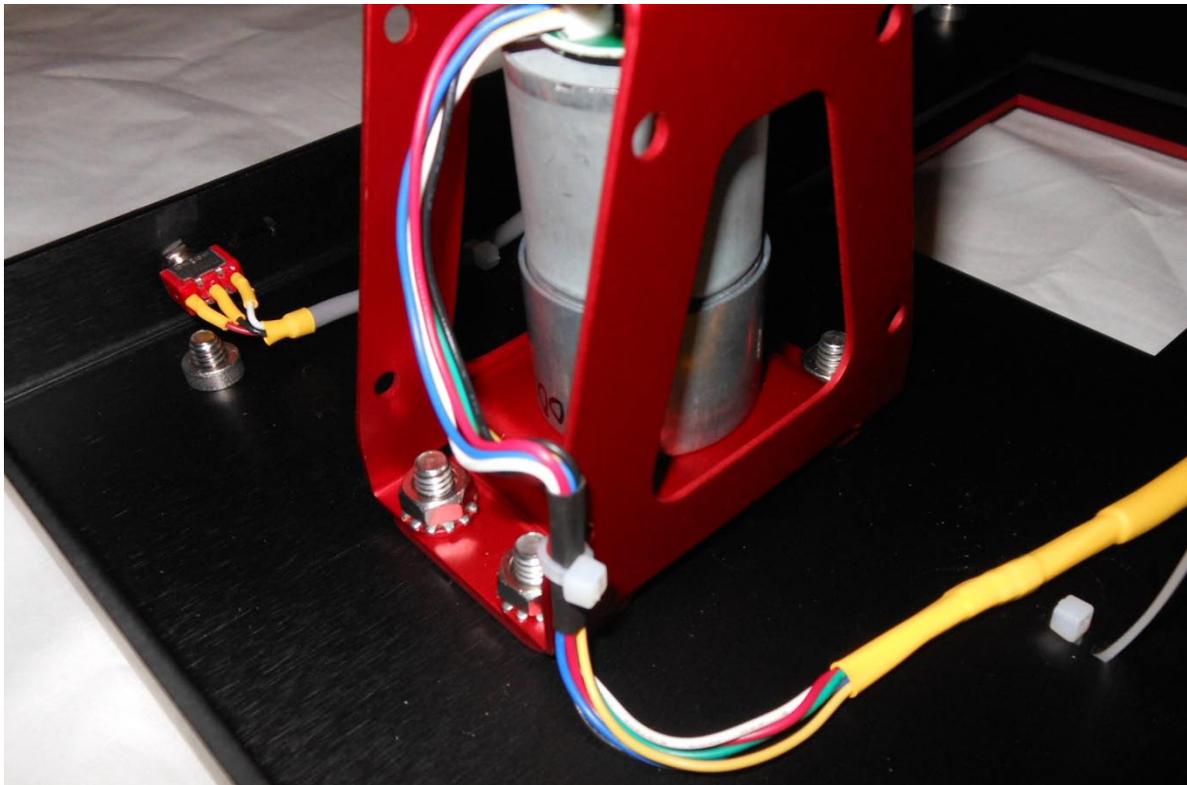
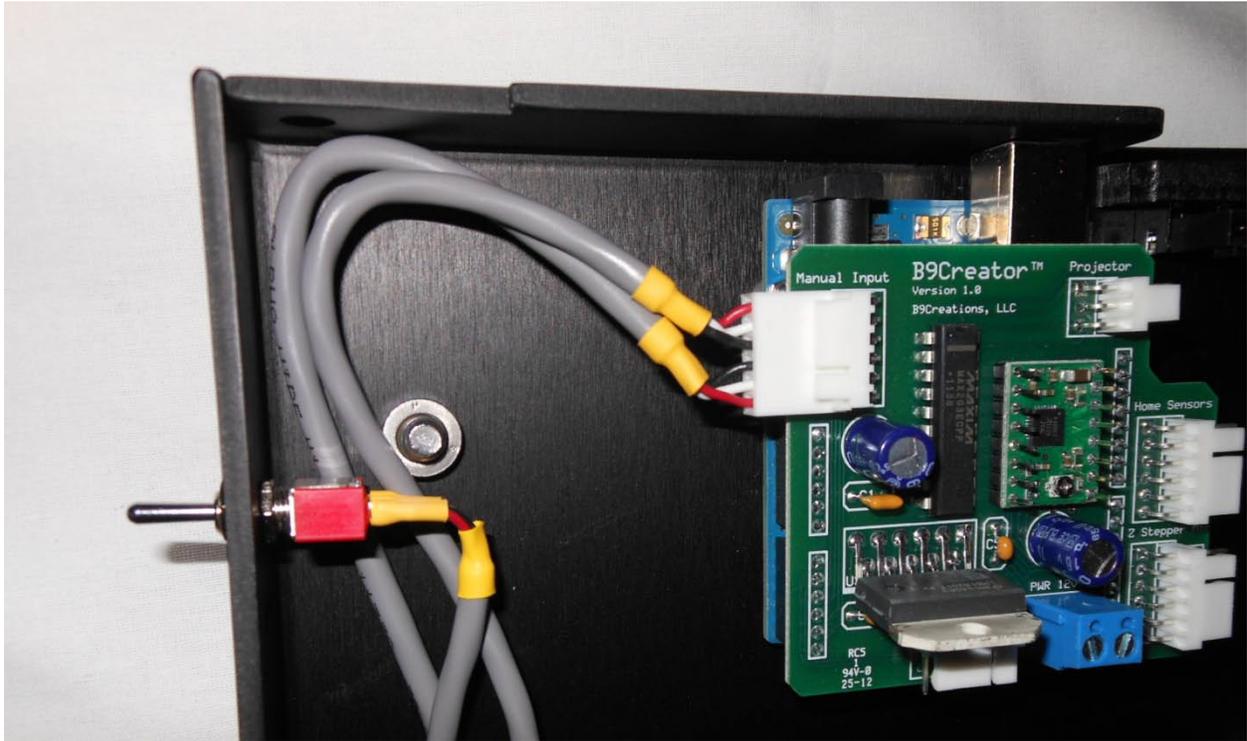


B9Creator Shield PCB

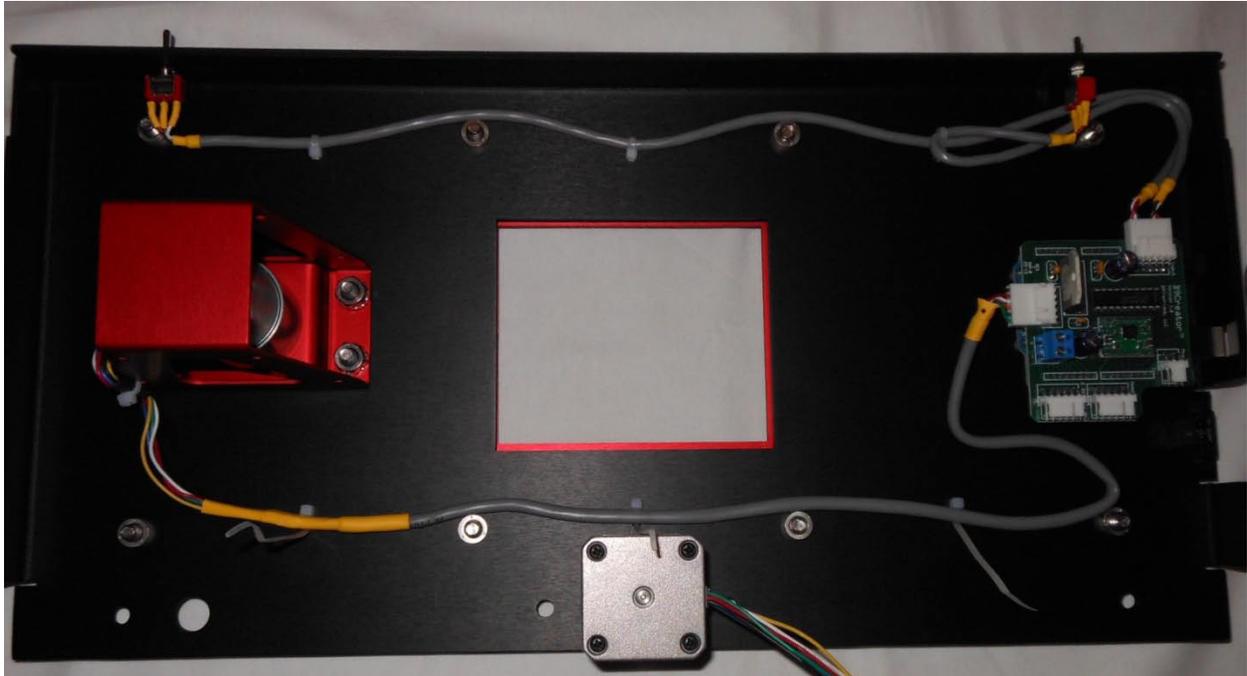


Shield after plugging into the UNO. Pay close attention to the shield's "leg" pins and how they engage the UNO receptacles , it will only align correctly in one position.

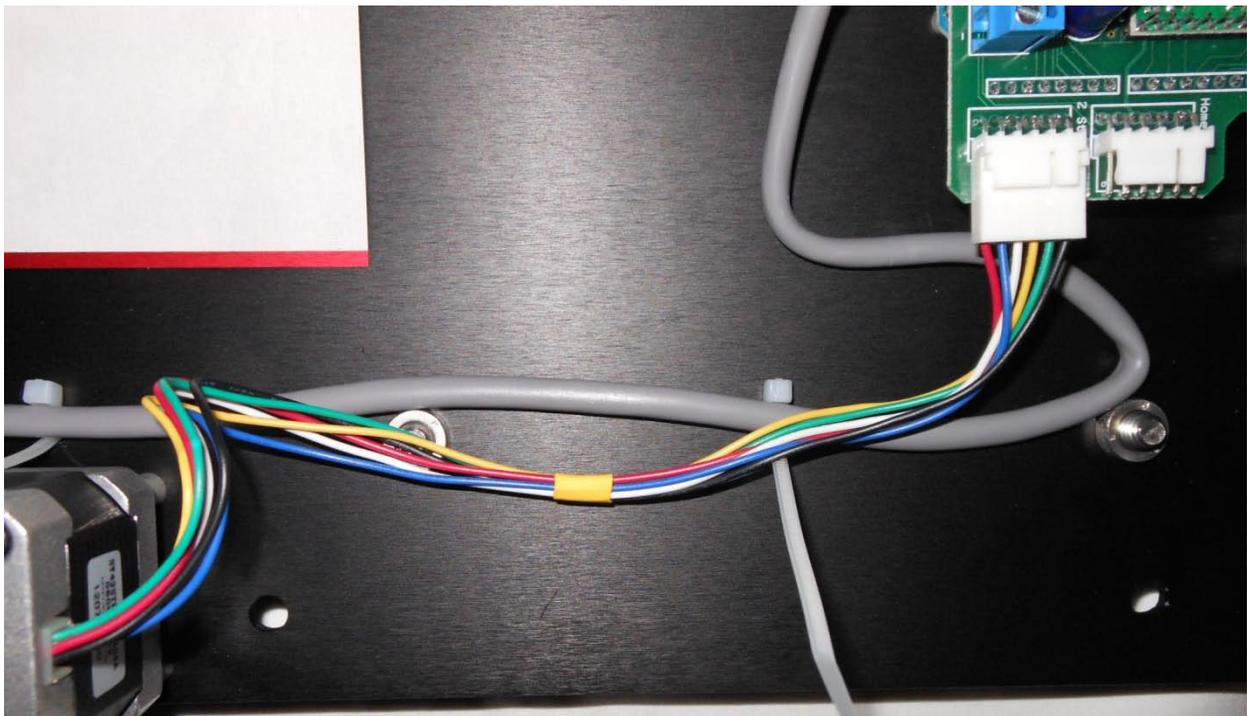
Connecting the Wiring Harnesses



Use a zip tie to secure the wire bundle to the Motor Guard



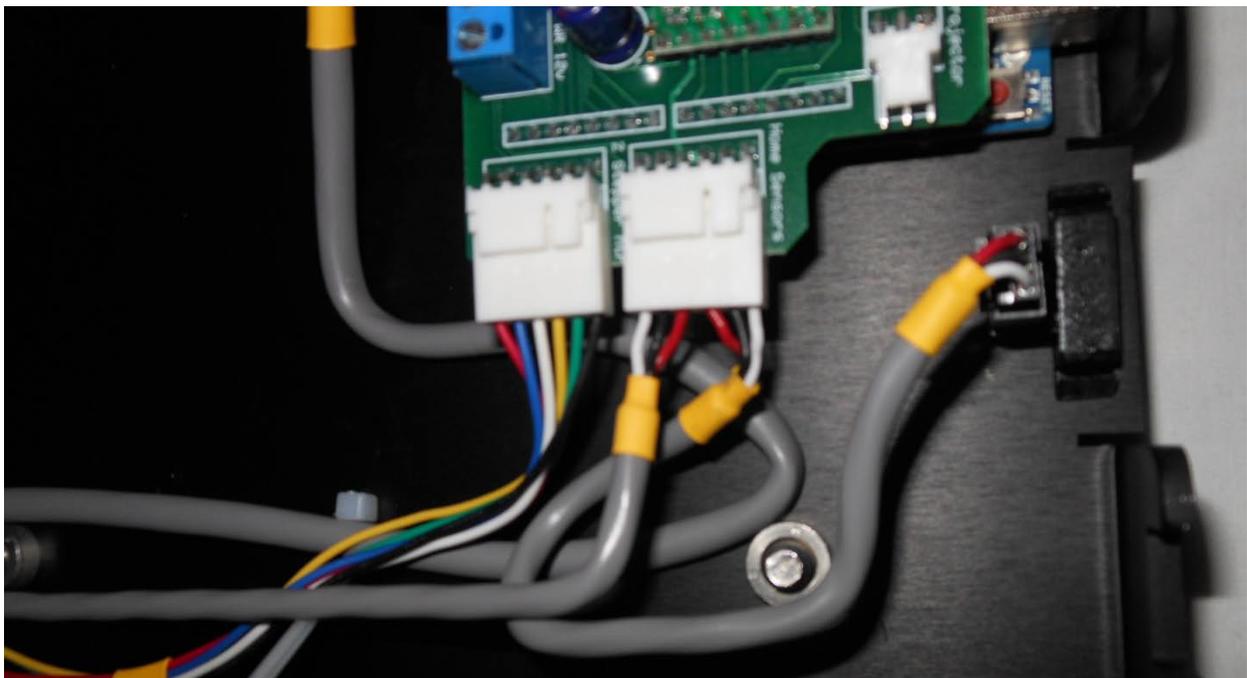
X Axis Slide Motor connected to Shield



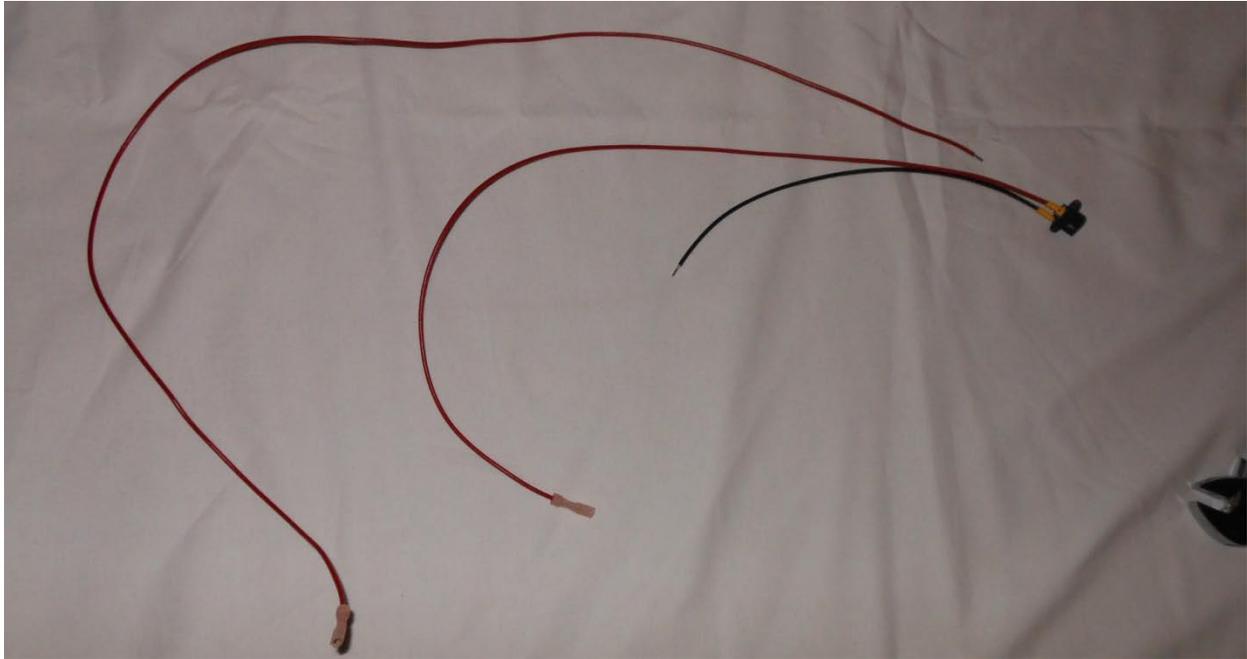
Z Axis Motor connected to Shield



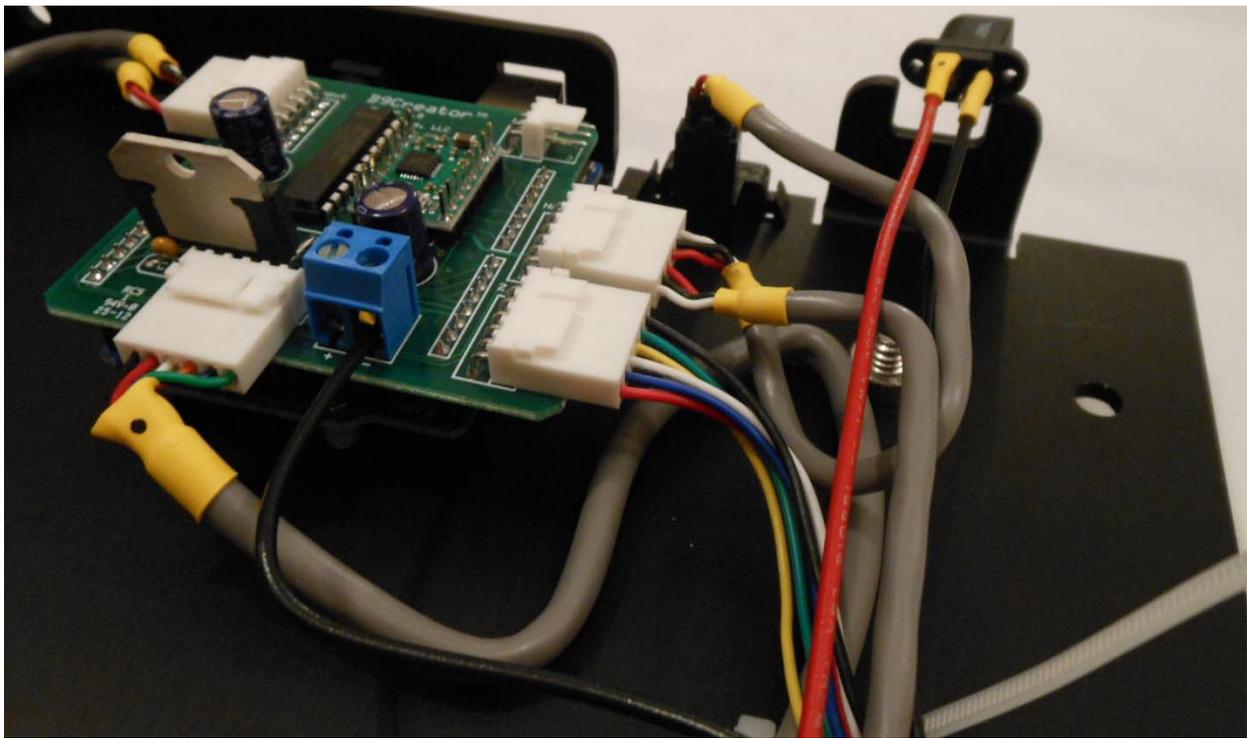
Home Sensor harness



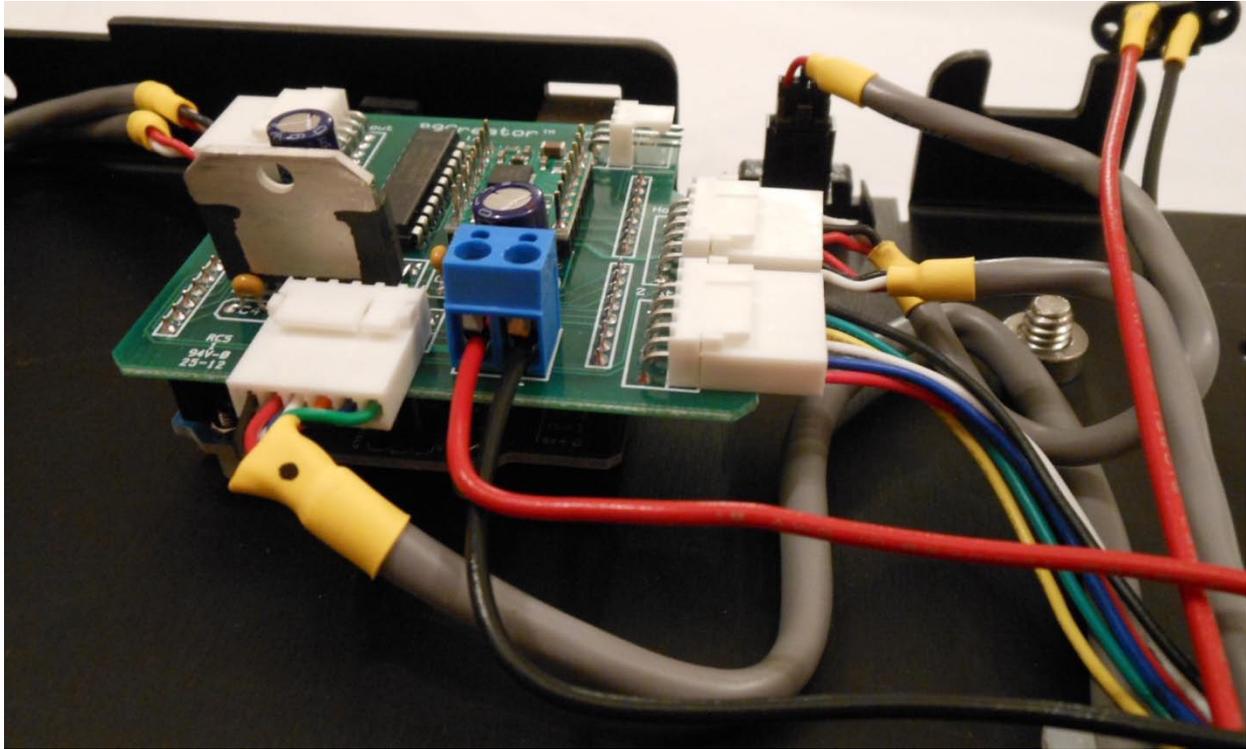
Home sensor harness connected to Shield, short run connected to Vat Table Home Sensor.



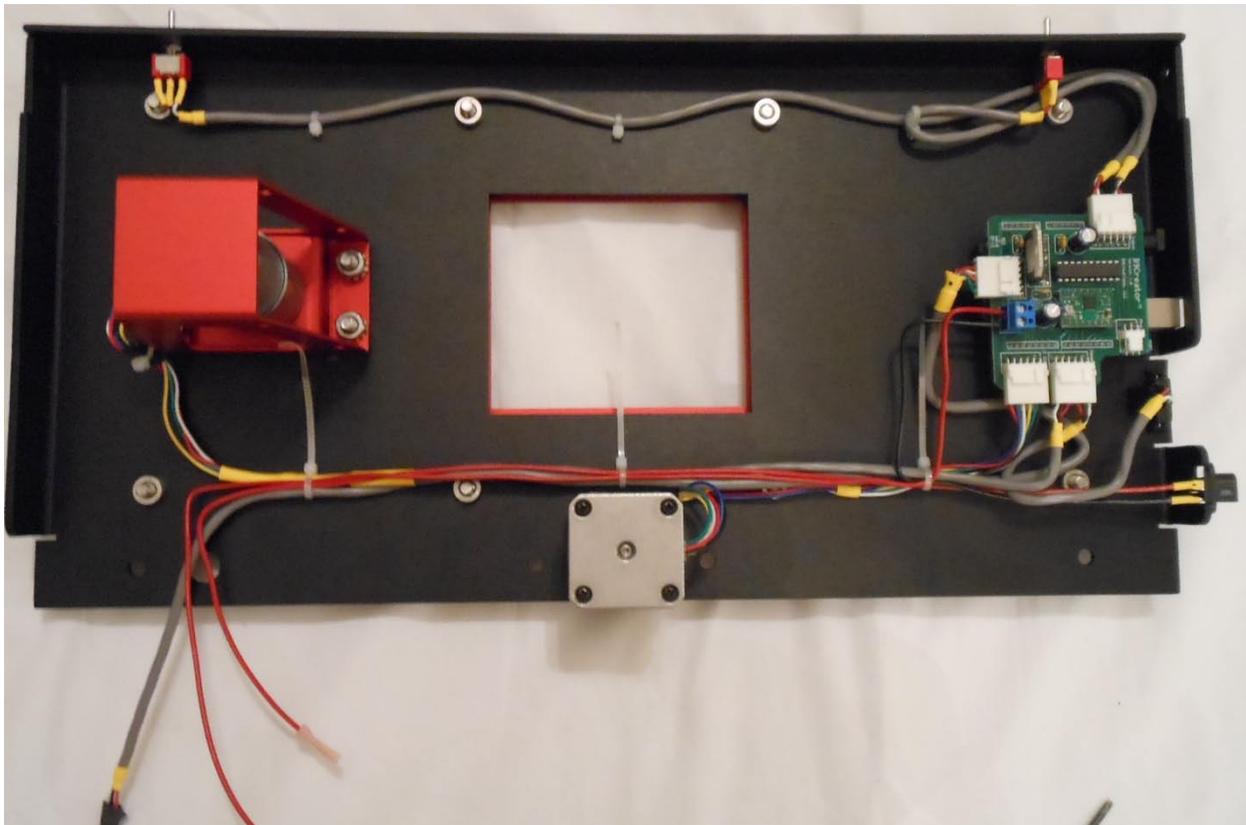
Power Cables

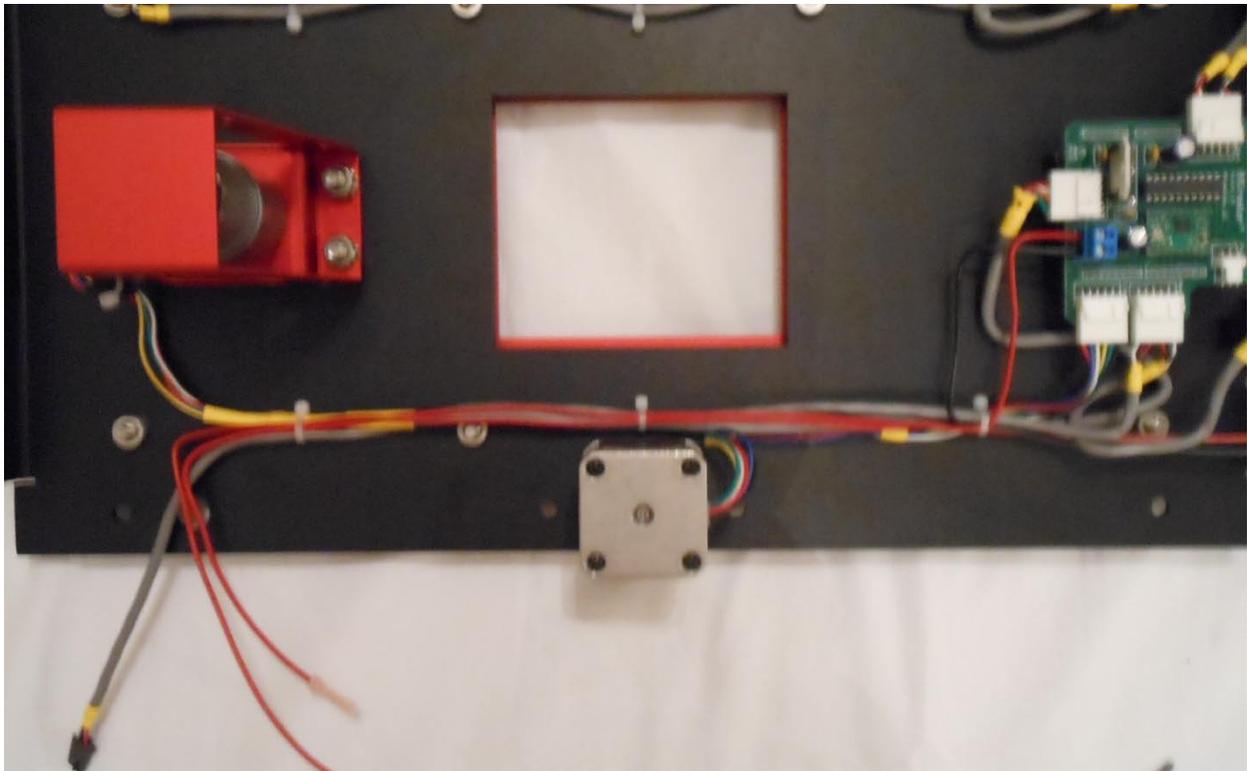


Power input in place with black wire connected to negative (-) Shield terminal



Power cable 2 in place with bare end connected to positive (+) Shield terminal





Harnesses secured and excess zip tie ends clipped off.



Finished! Congratulations! Set this aside for use in the final assembly.