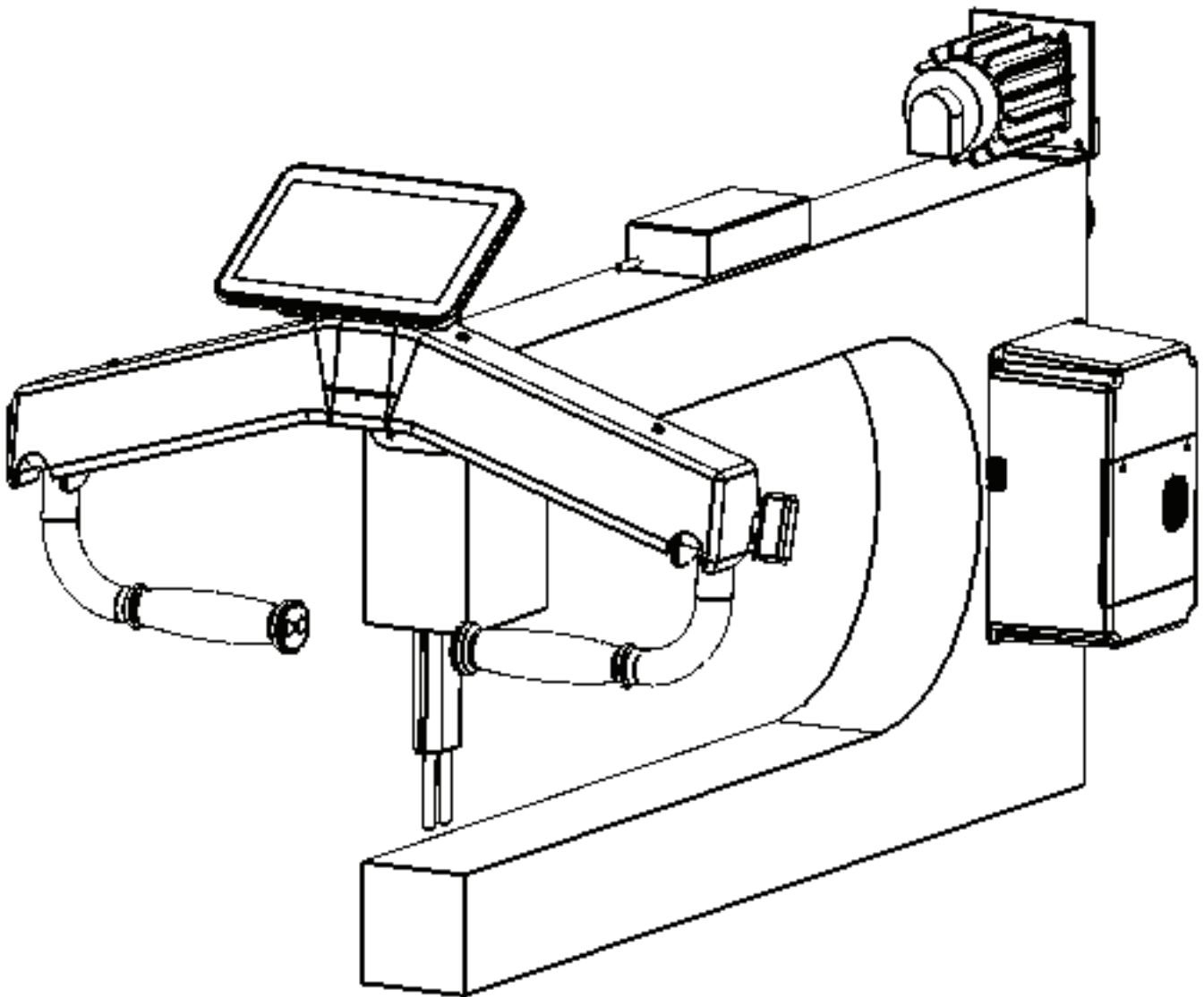


Quilt  
EZ

# Perfect Stitch

Machine Upgrade

APQS Assembly Instructions



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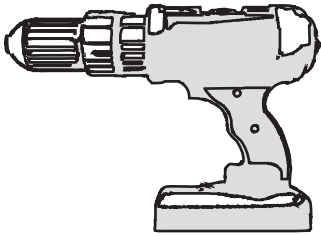
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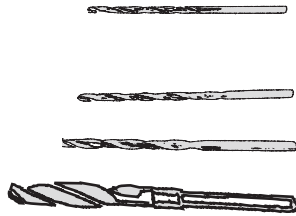
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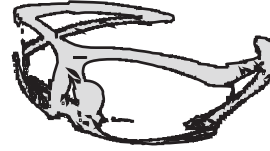
# Tools Required



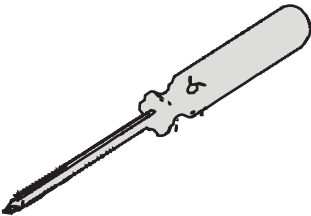
Hand Drill



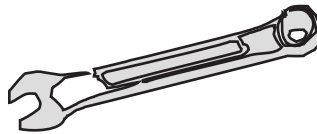
#29 (.1360") Drill Bit  
#25 (.1495") Drill Bit  
#7 (.2010") Drill Bit  
3/4" (.75") Drill Bit



Safety Glasses



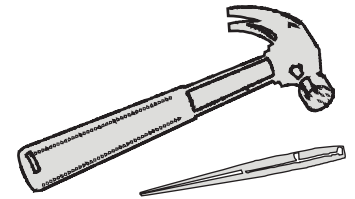
Phillips Screwdriver  
(#1 and #2)



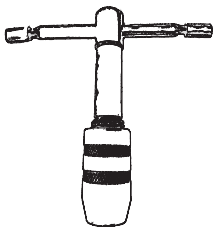
Wrench or Socket Set  
(Standard and Metric)



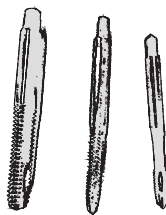
Hex Key Set  
(Standard and Metric)



Hammer and Punch



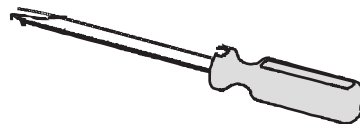
Tap Wrench



#1 4/20 Tap  
#8-32 Tap  
#10-24 Tap

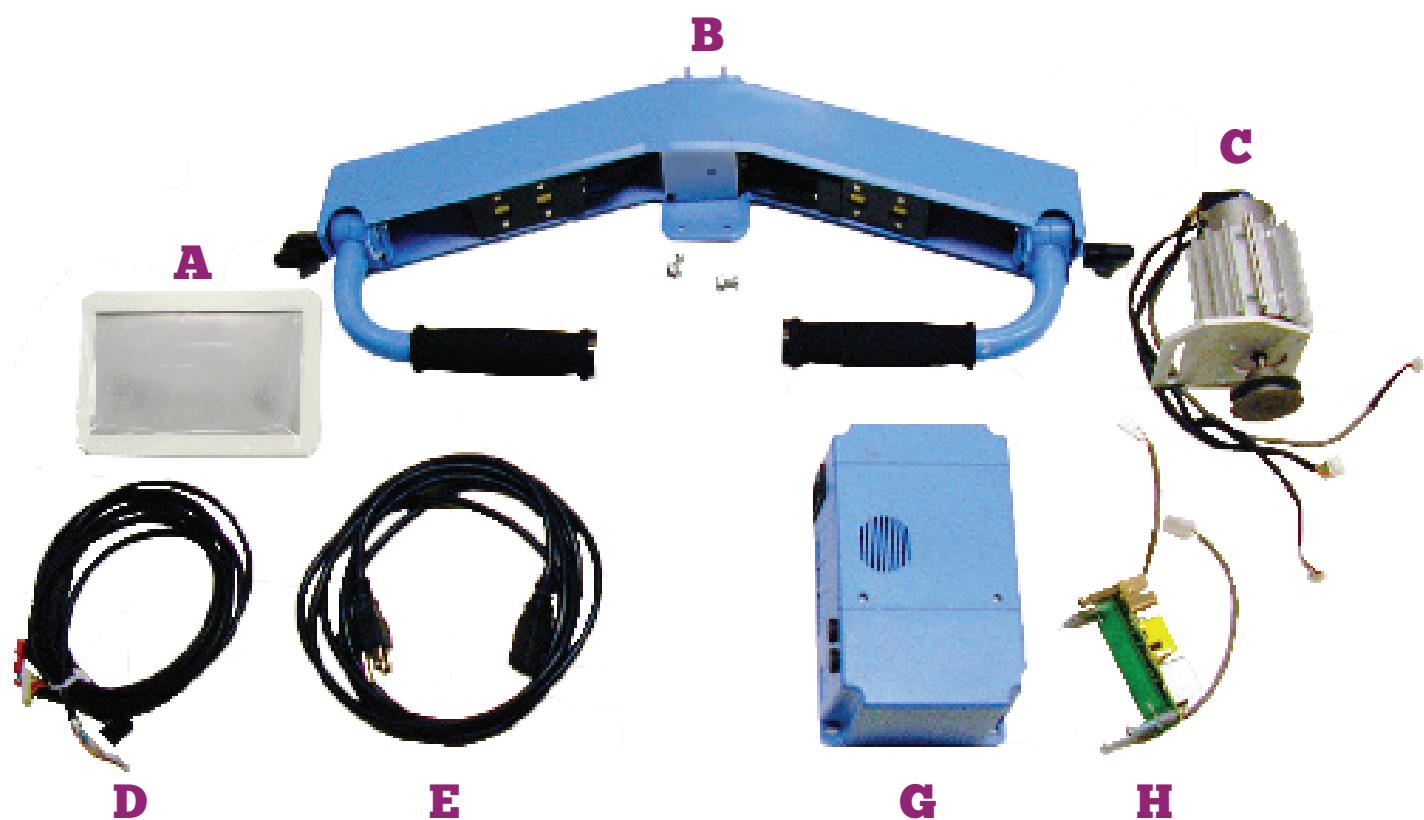


Tapping Oil



Flat Head Screwdriver

# Perfect Stitch Parts



| Letter   | Description                                   |
|----------|---|
| <b>A</b> | Display                                       |
| <b>B</b> | Handle Bars                                   |
| <b>C</b> | Motor   |
| <b>D</b> | Handle Bar Wires                              |
| <b>E</b> | Power Cord                                    |
| <b>F</b> | Control Box                                   |
| <b>G</b> | Power Supply                                  |
|          |   |
|          | (part colors may differ from current picture) |

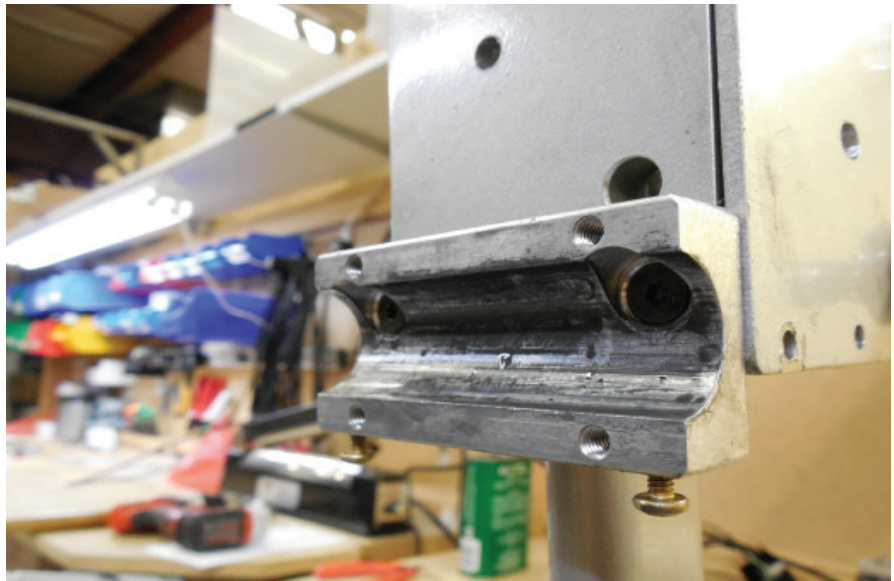
# ASSEMBLY

## **Remove the Handle Bars**

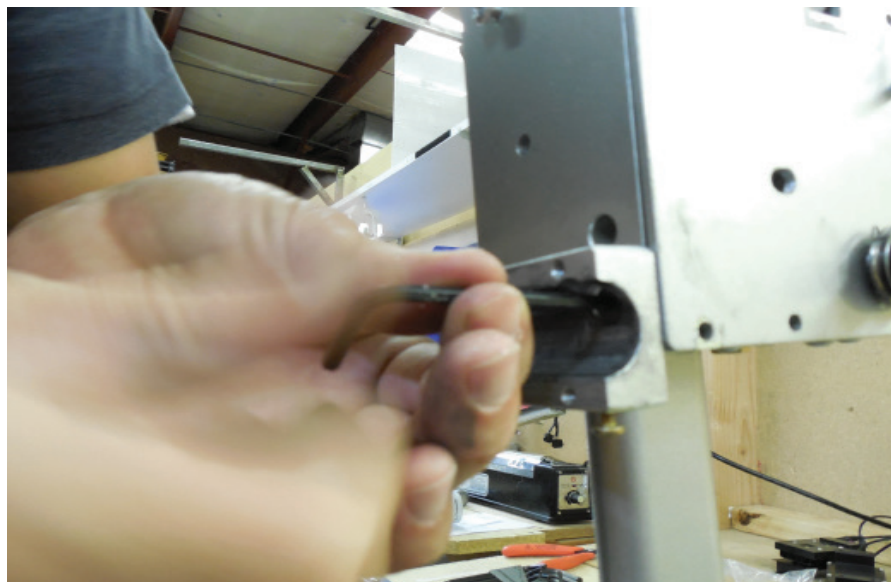
1. Remove the four screws attaching the face plate.



2. Remove the face plate, disconnecting the interior wire.



1. Remove the three (3) screws attaching each rear handle bar.

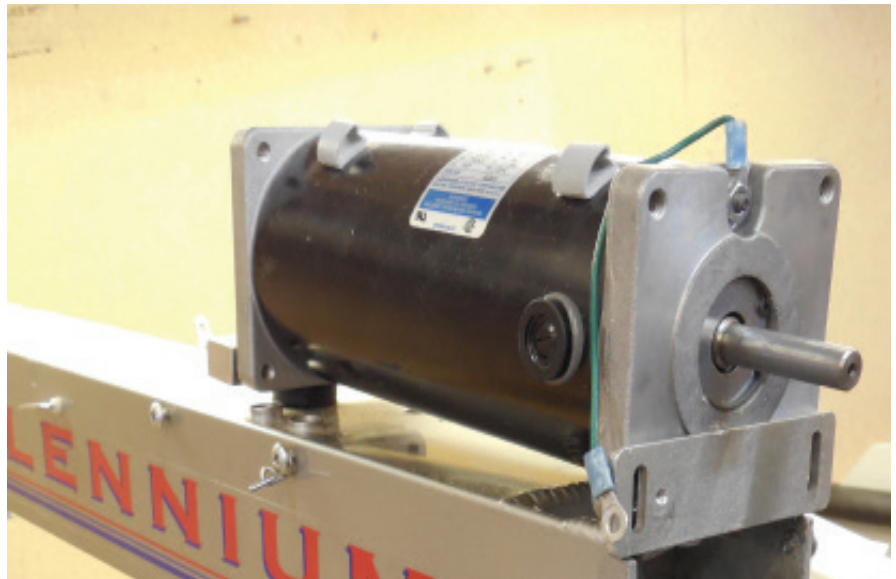


## Remove Top, Rear Covers



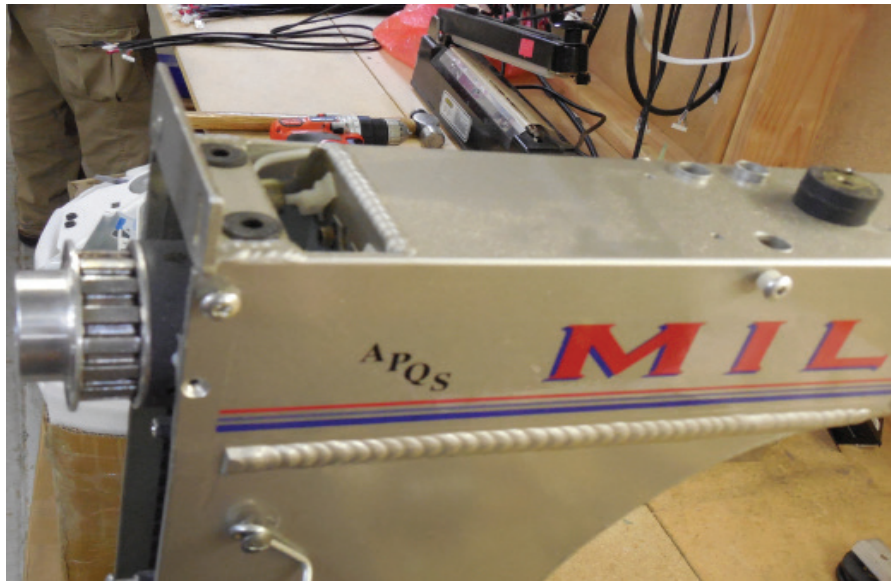
## Remove Motor

1. Unscrew any screws attaching the motor.





2. Remove the motor.

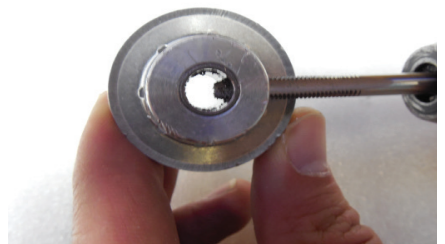
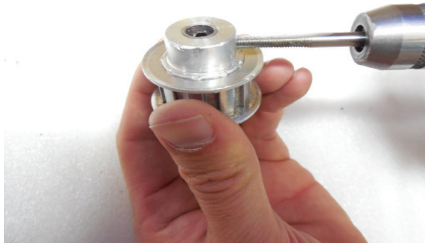
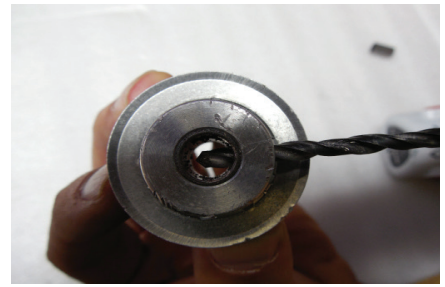


## Modify Pulley

1. Insert the small metal tube into the pulley.



2. Using a 10-32 size drill bit, drill through the wall of the inserted tube.
3. Tap the tube to 10-32.



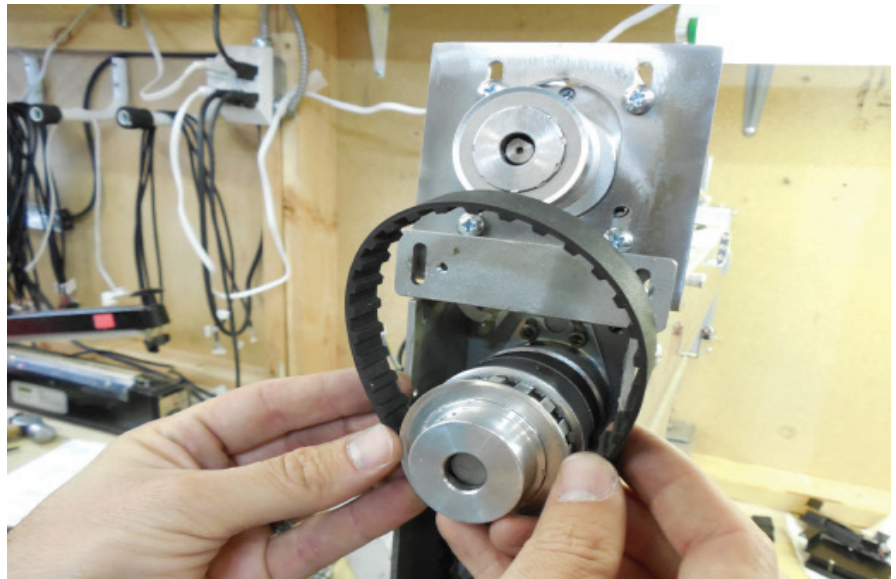
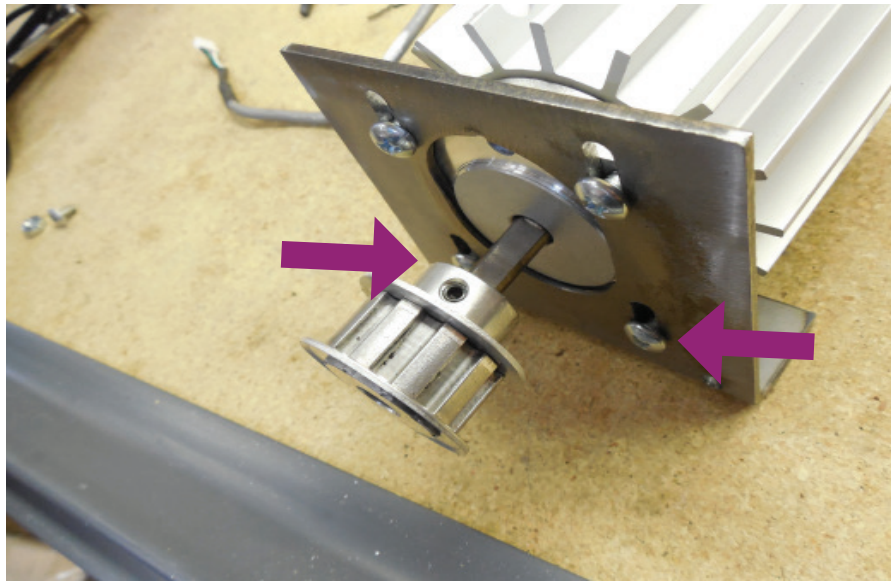
### **Attach Motor Bracket, Motor**

1. Insert the small threaded plug into the pulley.



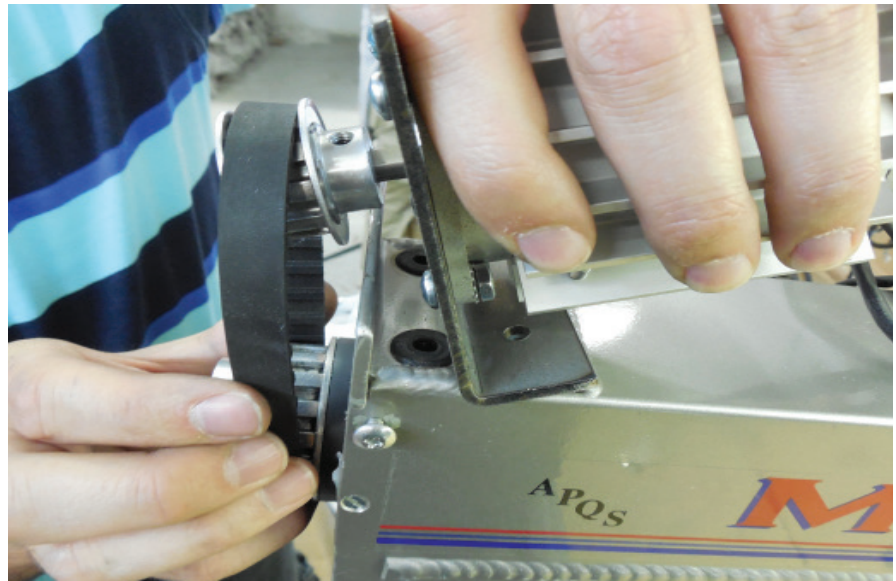
2. Slide the pulley onto the shaft of the motor. Reattach the belt to connect the two pulleys.

(Unlike the image at right, you will use flat head screws where indicated to attach the motor to the motor bracket.)

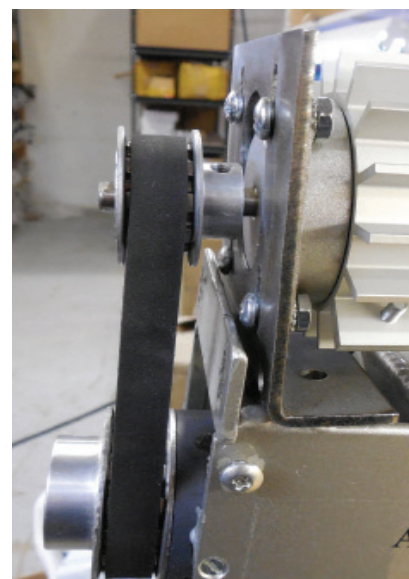
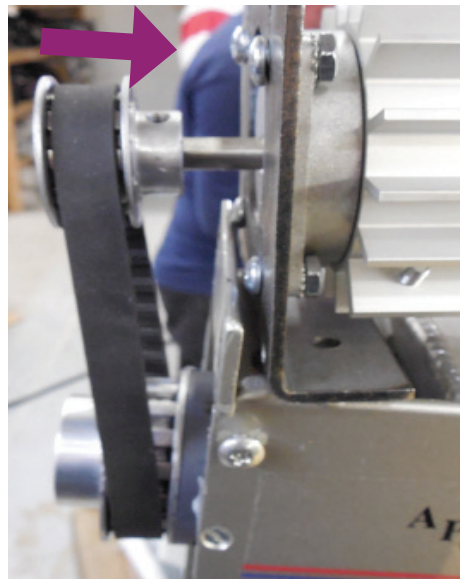




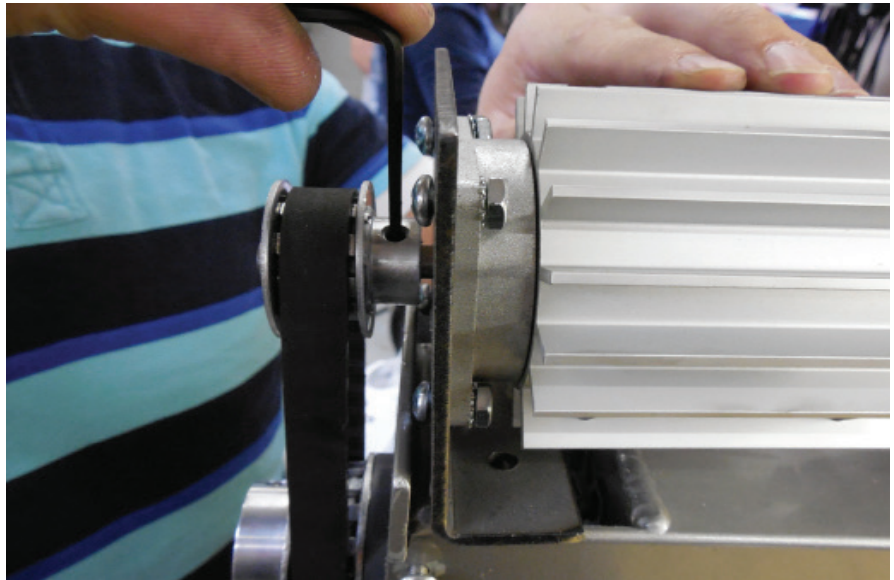
3. With the belt in place, slide the motor and motor bracket into position.



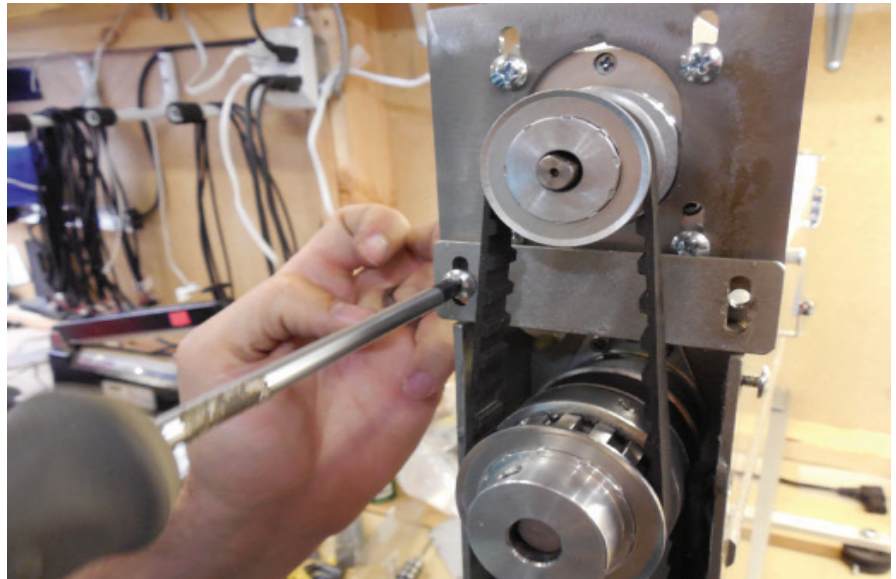
4. Slide the motor pulley so that it is directly above the lower pulley.



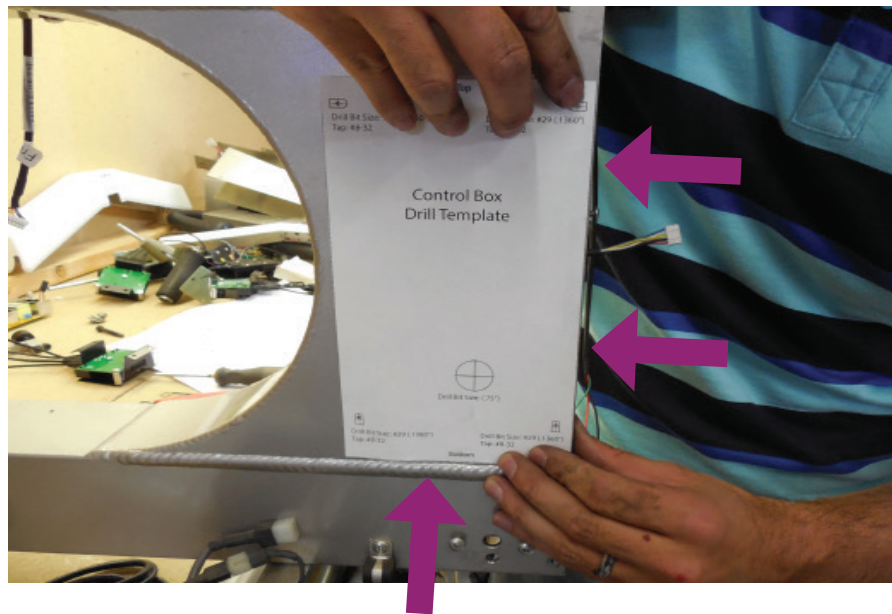
5. Using hex key, tighten the pulley into place.



6. Attach the motor bracket to the machine frame with two size 10-24 x 1/2 screws and nuts.

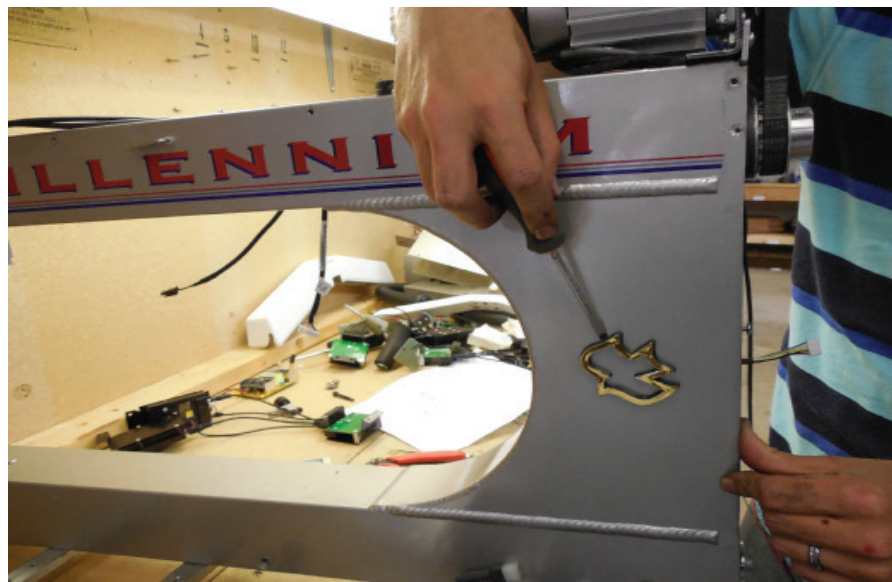


2. Position the control box drill template so that the bottom edge aligns with the weld marks and the right edge is flush with the machine. Tape into place.



### **Remove Logo, Attach Template**

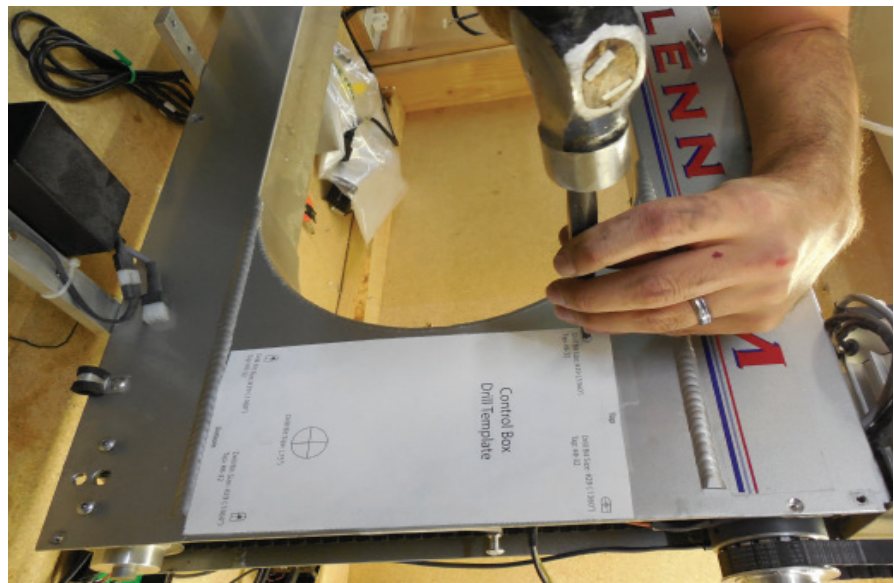
1. Remove one logo from the side of the machine.





## Punch, Drill, Tap Template

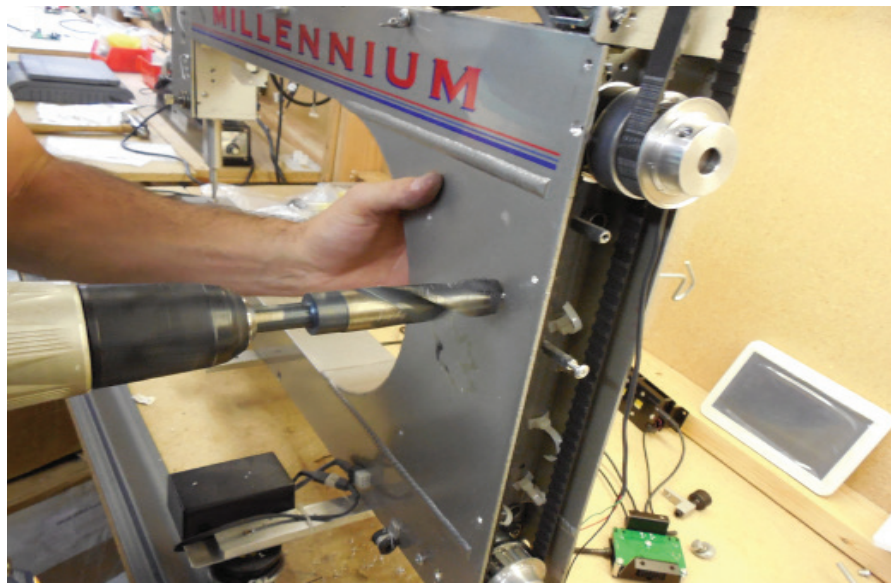
1. Using a hammer and punch, punch each cross hair on the control box template.



2. Using the size drill bit indicated on the template, drill each of the drill points marked with the punch. (Drill a pilot hole through the .75" drill point.)



3. Drill the .75" drill point. (This is where all your wires will be run.)



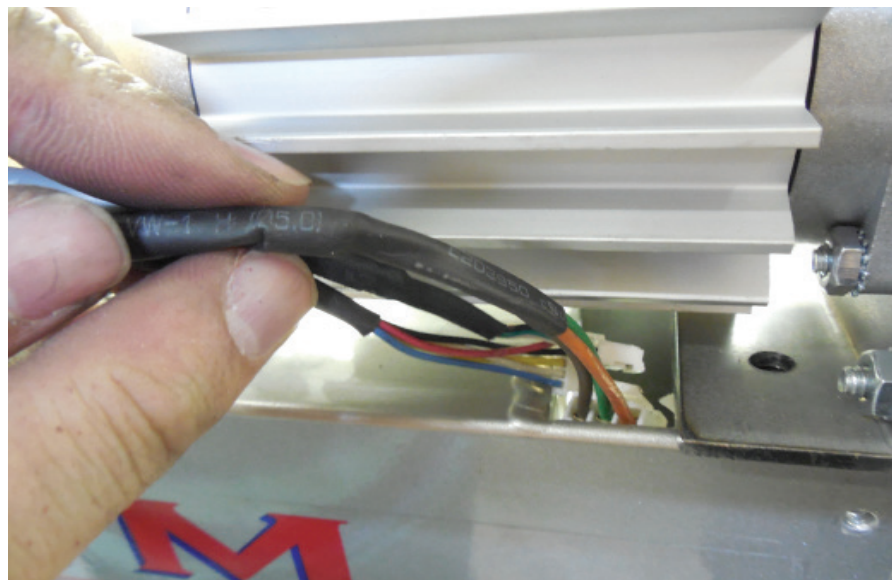
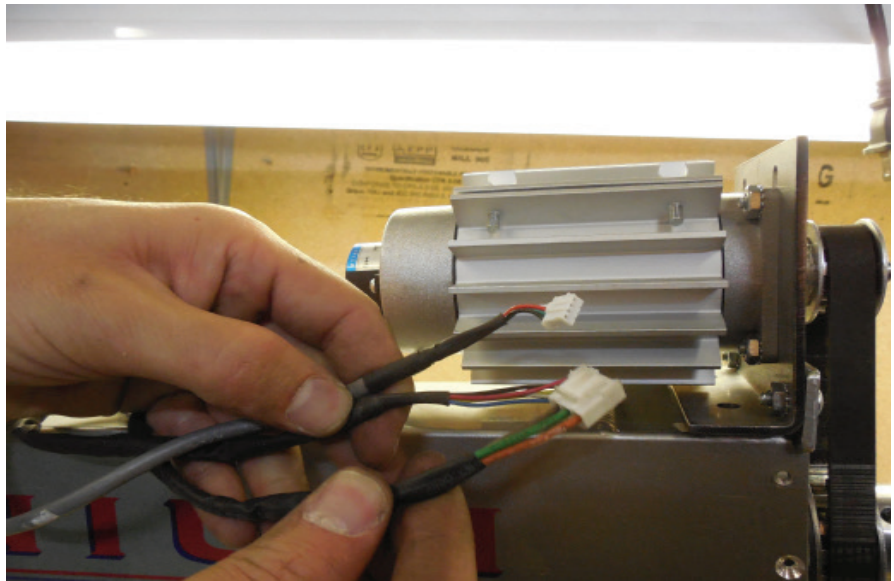
4. Using the tap size indicated, tap each of the drill points.



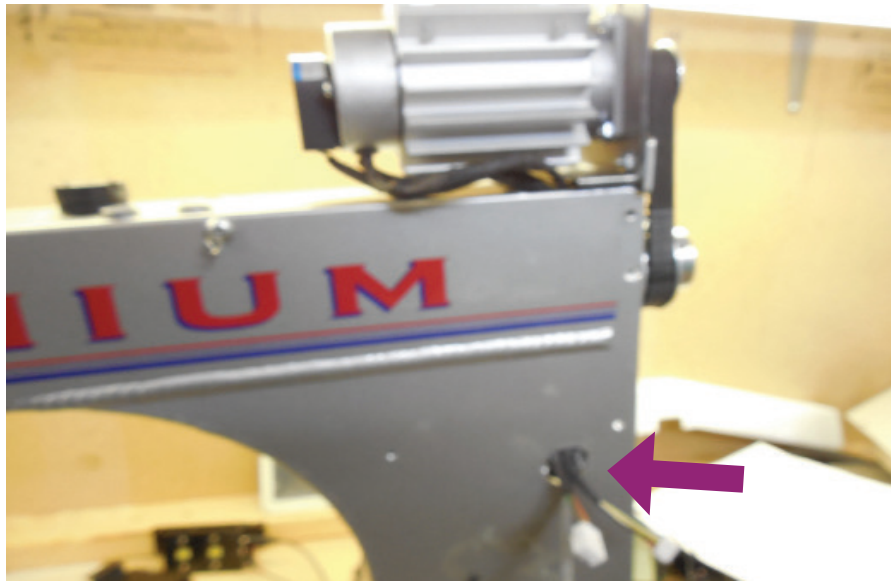


## Position Motor, Handle Bar Wires

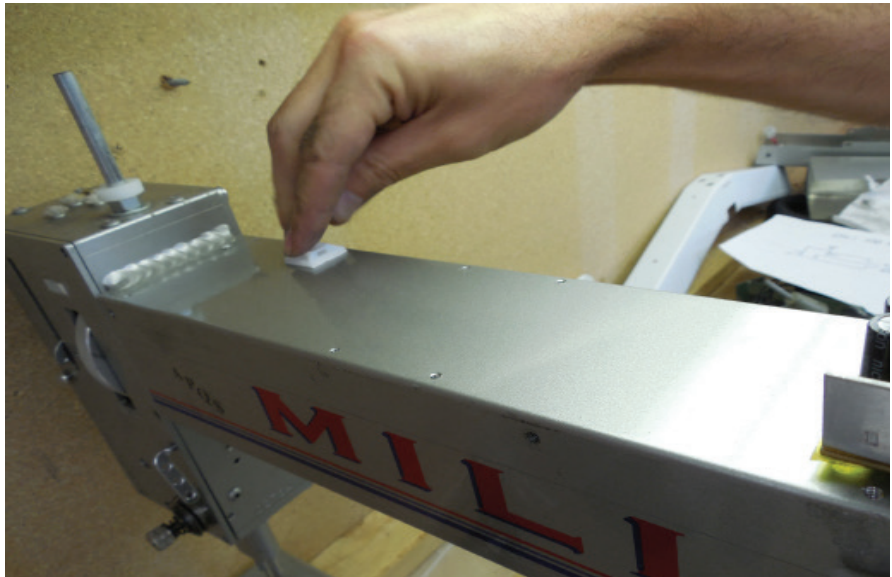
1. Tuck the three motor wires through the gap underneath the motor.



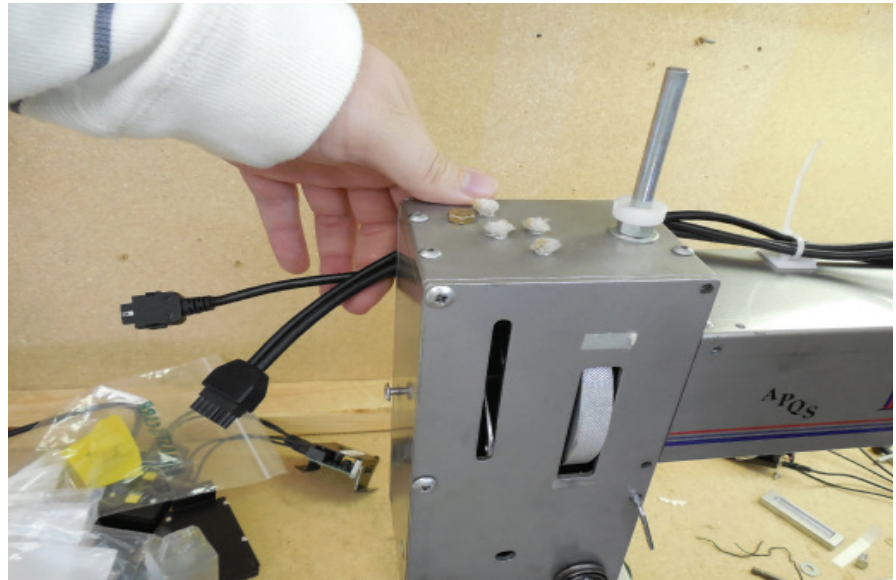
2. Push the motor wires through the .75" hole drilled earlier.



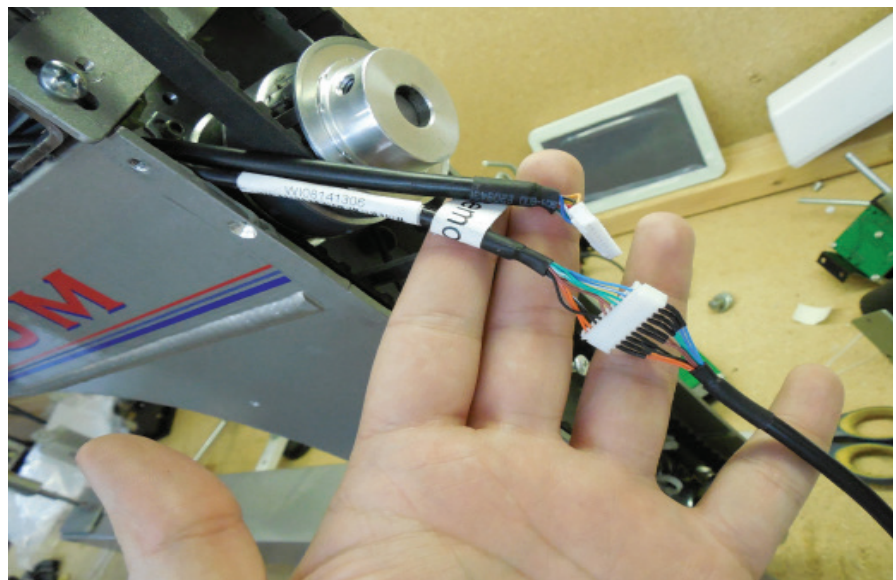
3. Attach zip-tie anchors along the top of the machine. (These will be used to anchor the handle bar wires.)



4. Attach the front handle bar and display wires to the front of the machine.



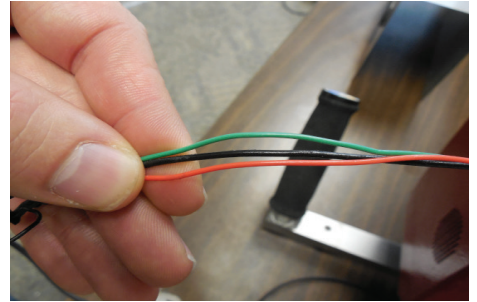
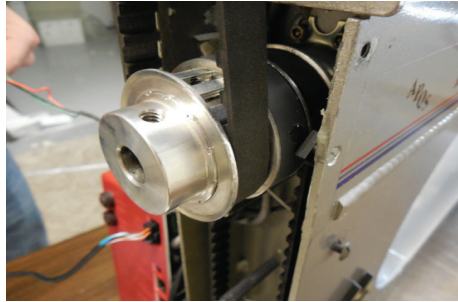
5. Run the wires along the top of the machine, under the bap beneath mounted motor, and out the .75" hole drilled earlier.



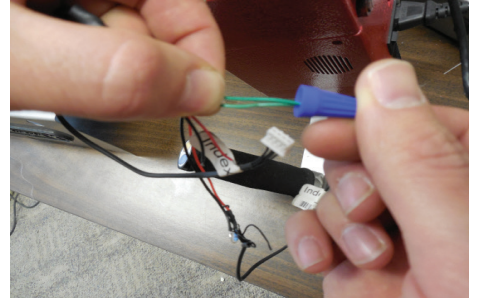
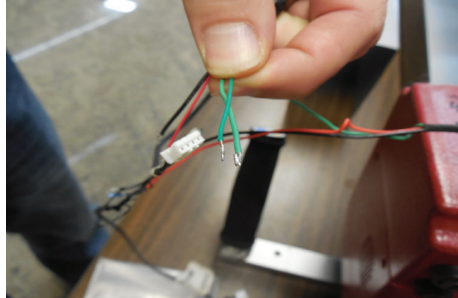


## Modify Index Sensor

1. The APQS index sensor is located near the top shaft has a green, black, and red wire.



2. Connect the green APQS index sensor wire with the provided green index sensor wire. Repeat for the remaining black and red wires.

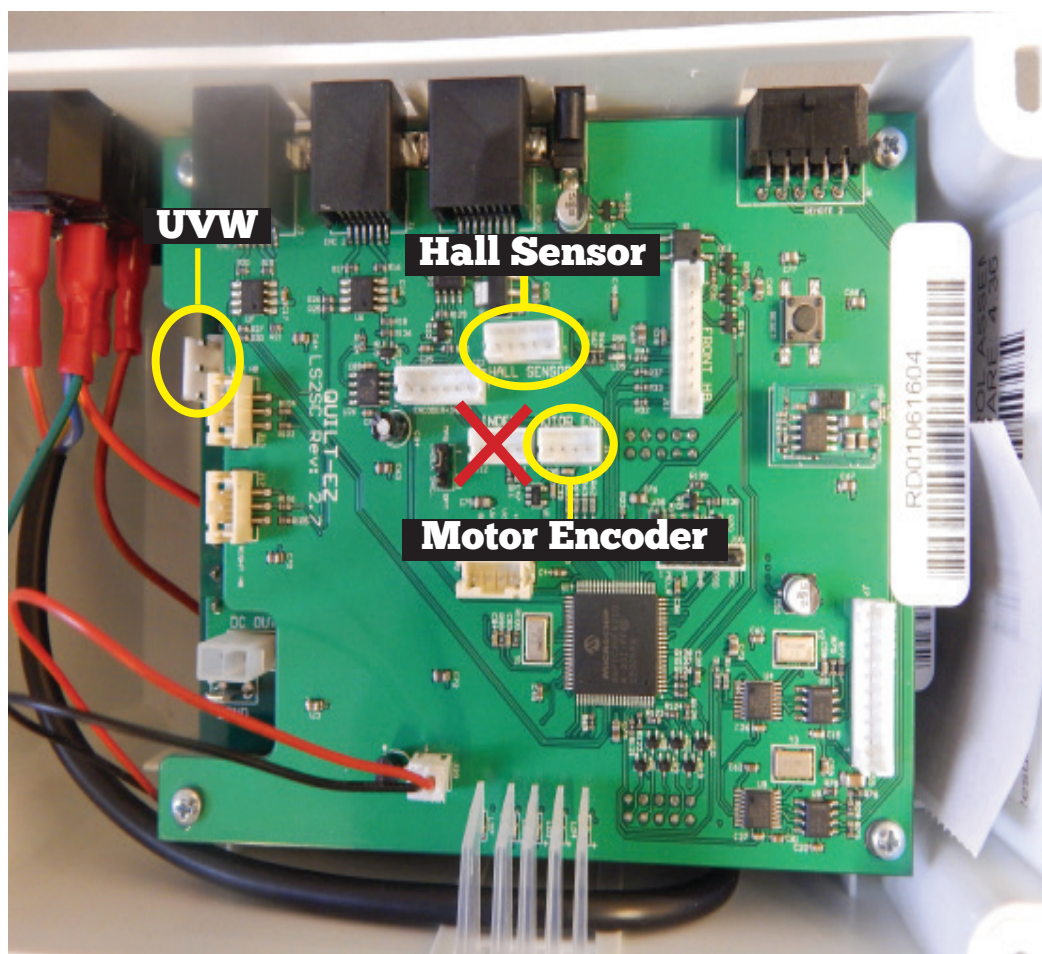


## Motor Wires

### Connect Motor Wires

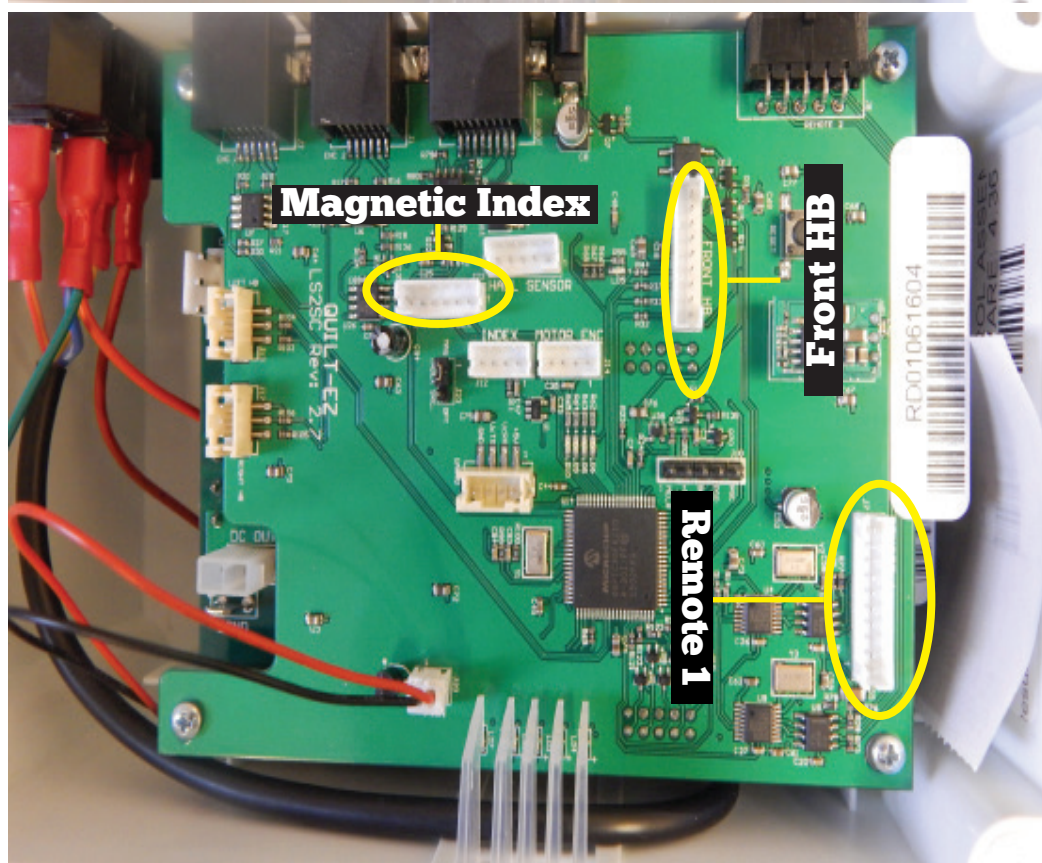
1. Connect the motor wires as shown at right.

Each of the ports will be labeled. Be sure to plug into the correctly labeled ports on the PCB.



### Connect Index, Handle Bars

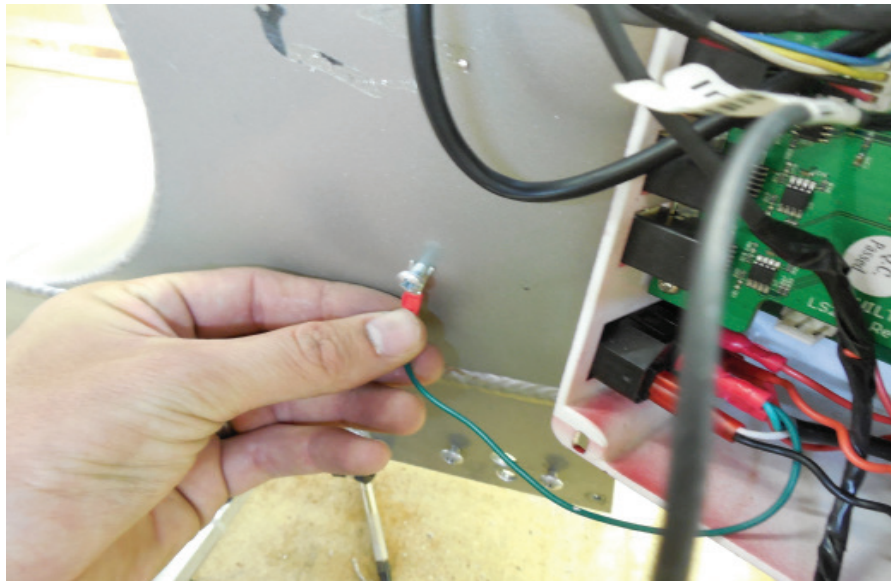
2. Connect the handle bar and display wires as shown at right. Each of the ports will be labeled. Be sure to plug into the correctly labeled ports on the PCB.



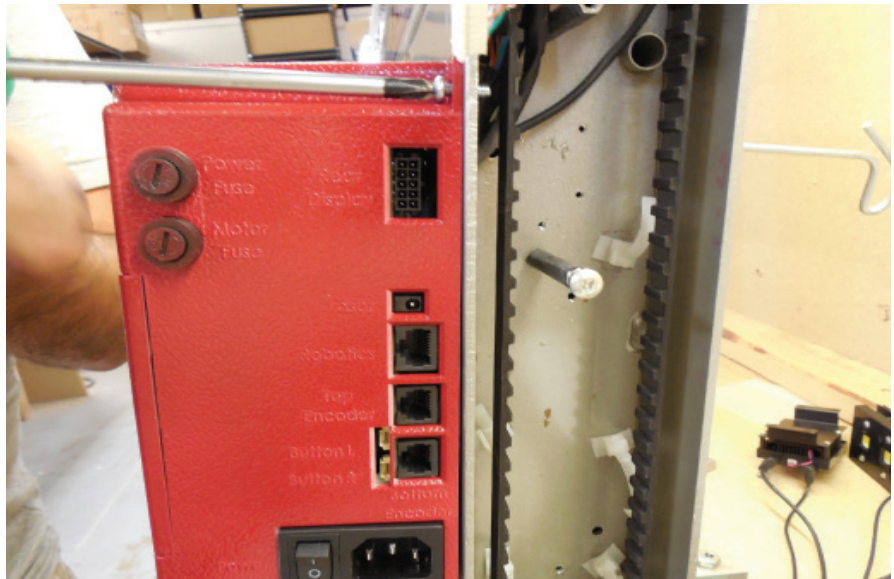


## Attach Ground Wire, Control Box

1. Screw the size 10-24 screw most of the way into the ground wire screw drilled earlier. Attach the ground wire and finish tightening the screw.



2. Attach the Control Box with the provided screws.

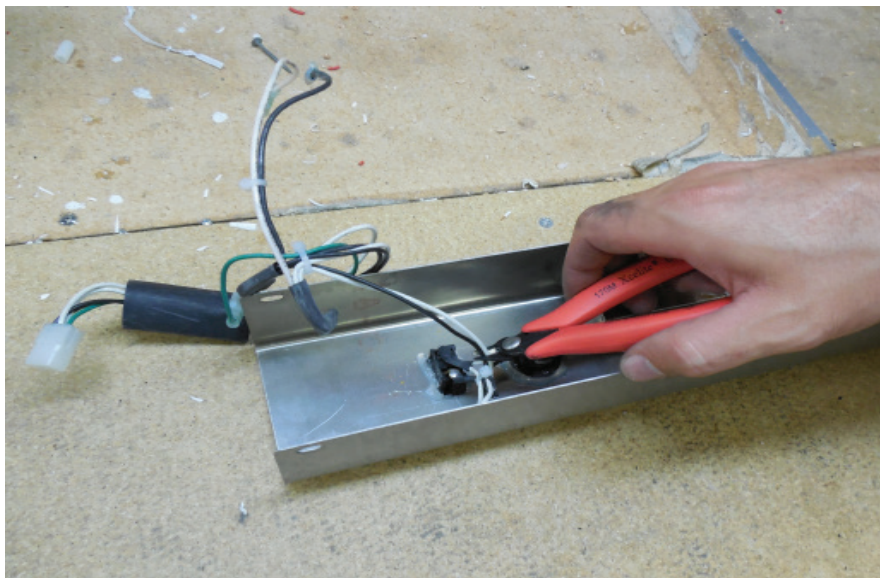


## Reattach Covers

3. Reattach the top covers.



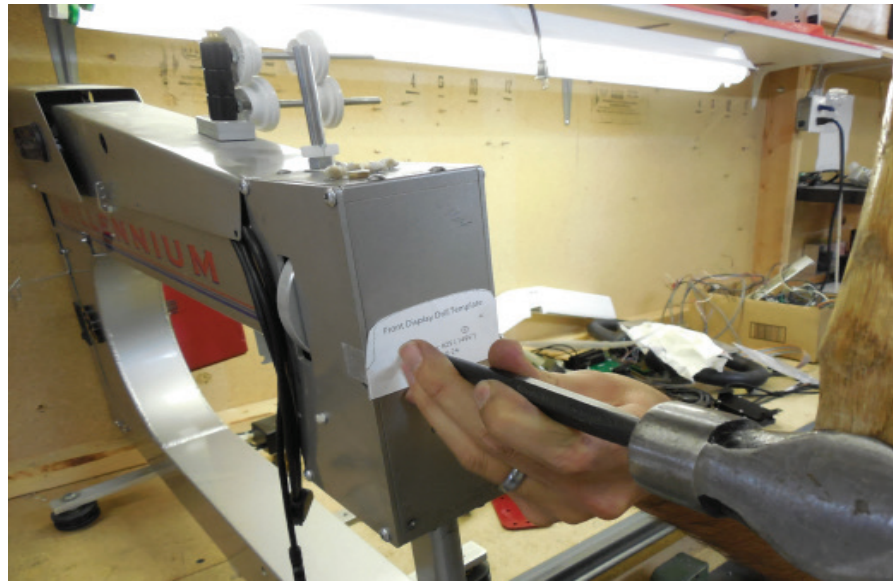
4. Remove any extra wires from the back cover before reattaching.





## Punch, Drill, and Tap Handle Bars

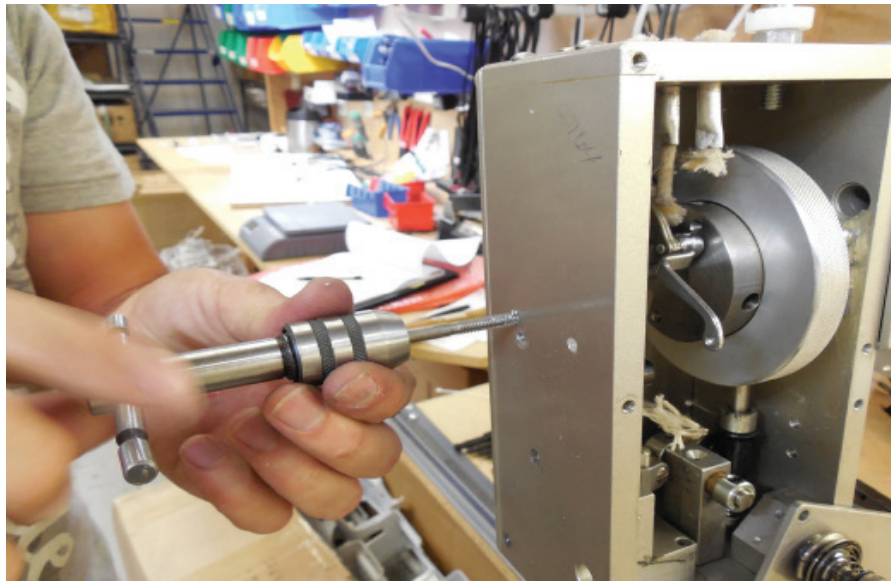
1. Tape the drill template to the front of the machine. Using the hammer and punch, mark the two crosshairs of the template.



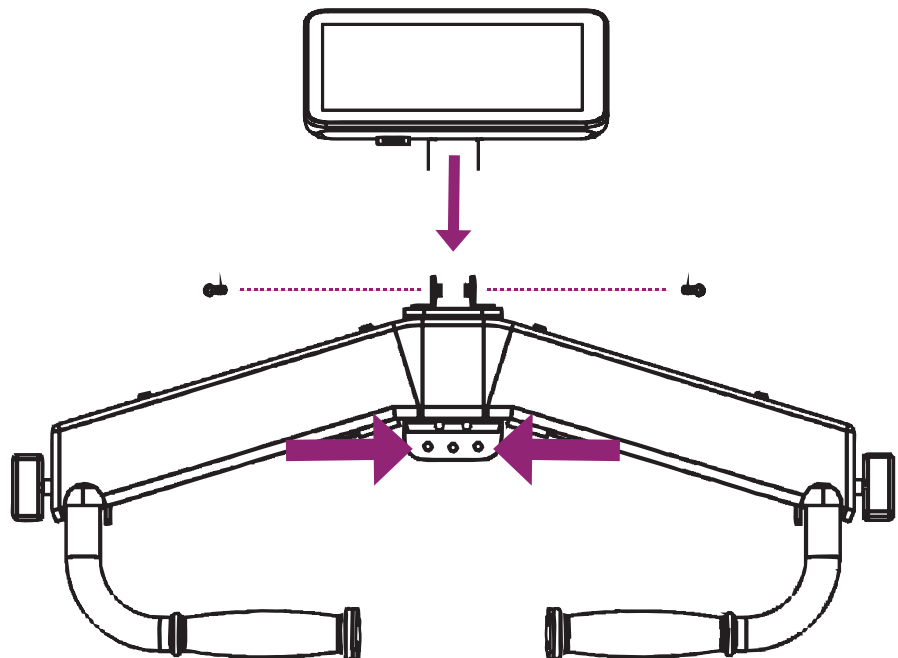
2. Using the drill size indicated on the template, drill the front handle bar drill points.



3. Using the tap size indicated on the front handle bar drill template, tap the handle bar holes.



4. Attach the display to the handle bars. Attach the handle bars to the faceplate using the two provided 10-32 x 3/4" screws.



## Alter Rear Handle Bars

### Right and left handlebars

1. Pull back the handle bar foam about a 1/4 of an inch and drill two holes.

Using a .096 drill bit, drill two holes through the end of the handle bar.

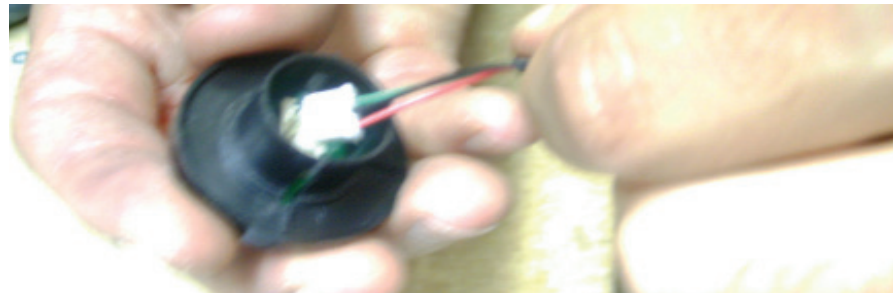
These holes are meant to secure the handle bar buttons.



2. Connect the rear handle bar wires to the buttons.

Run the handle bar wires through the handlebars and attach the buttons using the provided screws.

Reattach the rear handle bars.



3. Reattach Rear handle bars. Repeat process on other rear handle bar.







*Perfect Stitch*  
Machine Upgrade

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