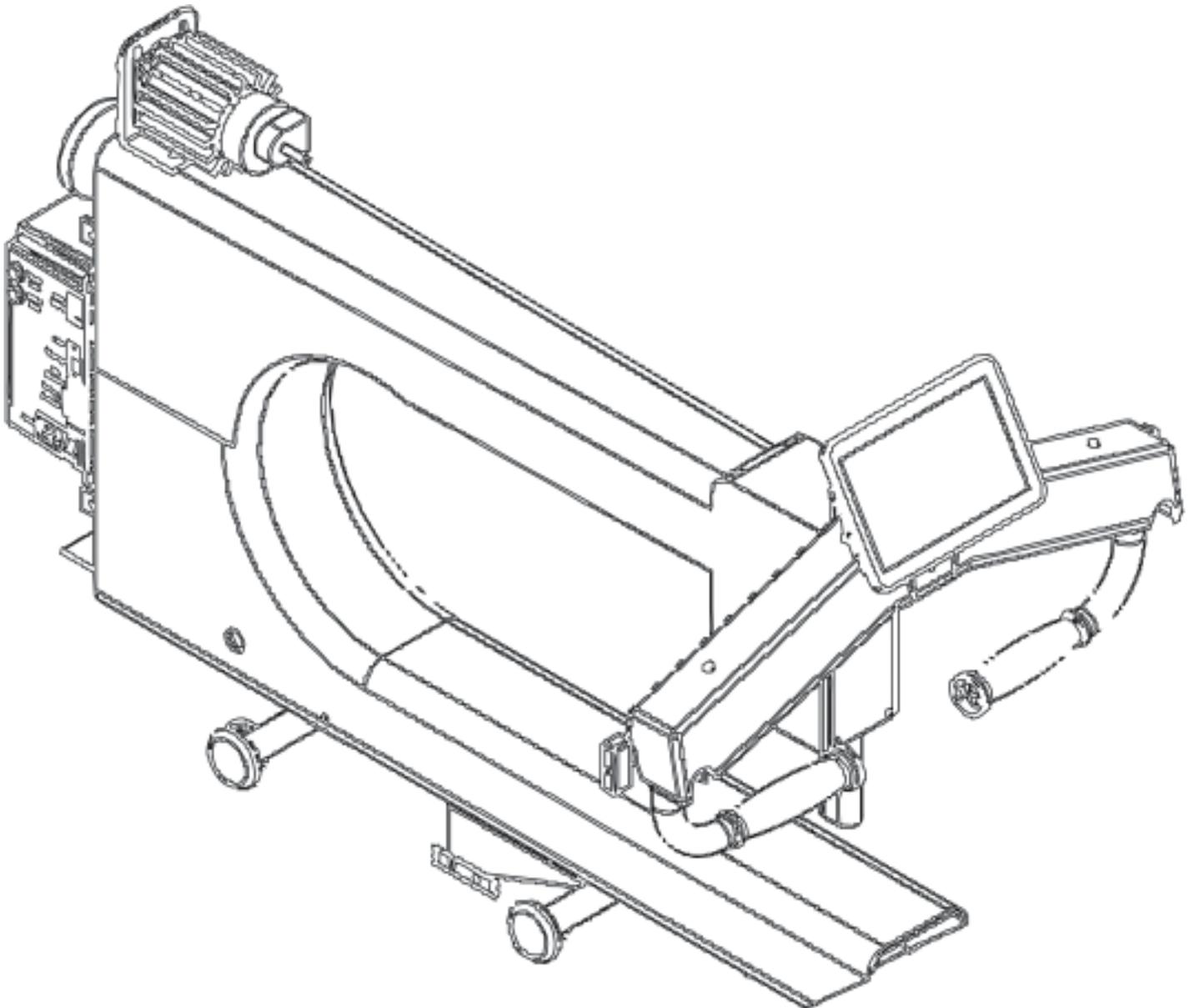


Perfect Stitch

Machine Upgrade



A-1 Long Arm

Machine Checklist

BE SURE TO TEST THE MACHINE BEFORE REMOVING ANY ELECTRONICS.

1. All cables run properly and will not be caught by any moving parts
2. All cable plugged into their respective locations and seated well
 - a. Will not come unplugged if vibrated.
 - b. Might want to have them address each cable here...showing pictures of well seated and not well seated cables.
3. All screws tight for all pieces
 - a. Will not come loose after vibration.
4. Belts a good tension
 - a. Discuss belt tension and how it should not be extremely tight, but also should not easily slide, needs some give, but also some tension.
5. After all pieces confirmed power on system.
6. Confirm the display comes up and communicates
 - a. If gives the communication error should refer them to their trouble shooting guide, to a specific step.
7. Have them go into the system – additional settings and set the motor ratio.
 - a. Don't forget to BOLD to check the box to “load ratio” when the machine starts. Explain if they don't check this box the ratio will default and need up position will not be proper.
8. Confirm all system settings:
 - a. Index working
 - b. Motor encoder working
 - c. Carriage encoders working – add the encoder test sheet to this section
 - d. Lights working
 - i. White Lights on and dimming
 - ii. Black lights turning on (if available)
 - iii. Laser working (if available)
9. Run manual stitch for 5 minutes, confirm all good
10. Run regulated for 5 minutes faster and slower, confirm all good.
11. Run Idle for 1 minute, confirm
12. Run baste for 1 minute: confirm the needle stops up each time.
 - a. IF it does not stop consistently in the up position, go into the motor settings
 - b. Additional setting – PID Settings
 - c. Change the “stat position – KD” to .0012
13. IF the unit has rear handle bars:
 - a. Confirm all 4 buttons function
 - b. Confirm rear display communicates and functions

Pulley Size

To get the correct measurement of pulley needed for your machine you will need to measure how long your current machine pulley is.

Measure the machine pulley from end to end.

Once measure you will Divide by 1.5

This will be giving you the ratio and corresponding size of pulley, keep in mind that you get an exact number. You will need to round to whatever number it is the closest to.

Pulley Sizes

1"

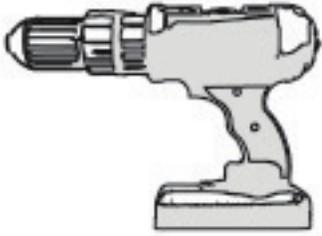
1 1/2"

2"

3"

You will then decide which one of the listed pulley sizes you will need for your machine.

Tools Required



Hand Drill



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



Safety Glasses



Flat Head Screwdriver



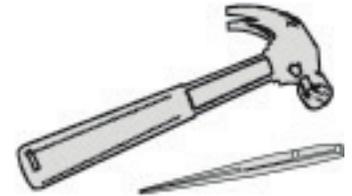
Phillips Screwdriver
(#1 and #2)



Wrench or Socket Set
(Standard and Metric)



Hex Key Set
(Standard and Metric)



Hammer and Punch



Tap Wrench

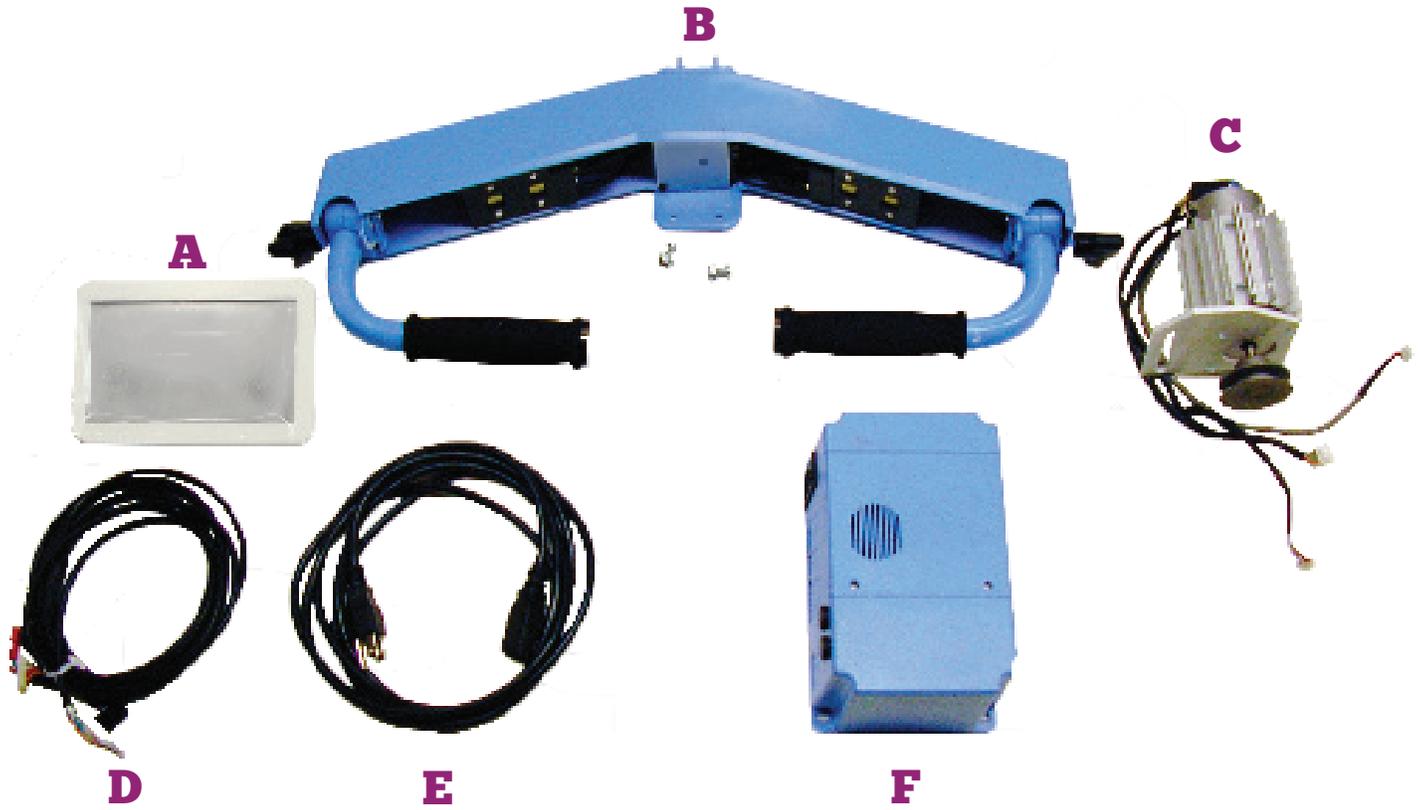


#1 4/20 Tap
#8-32 Tap
#10-24 Tap



Tapping Oil

Perfect Stitch Parts

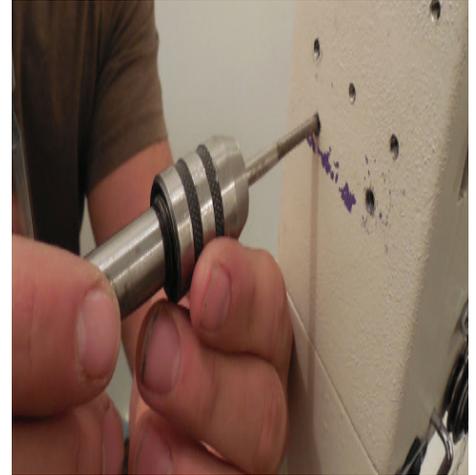
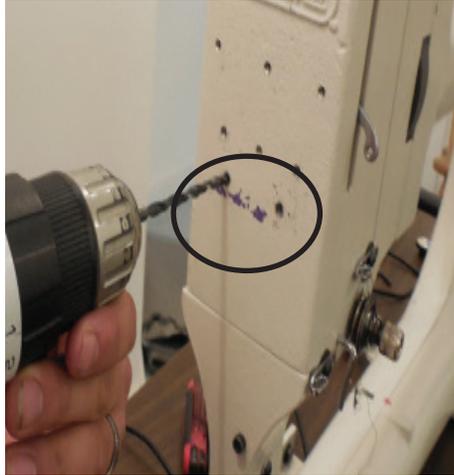


Letter	Description
A	Display
B	Handle Bars
C	Motor
D	Handle Bar Wires
E	Power Cord
F	PCB Box
	(part colors may differ from current picture)

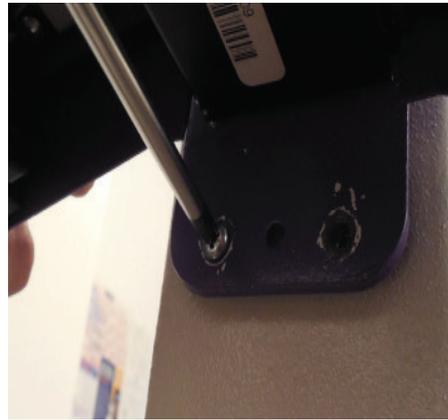
Attaching Handle Bars

1 Using a number **25 drill bit** you will start drilling 2 holes into the casting of your machine. You will then use a **10-24 Tap** to tap the holes you just drilled.

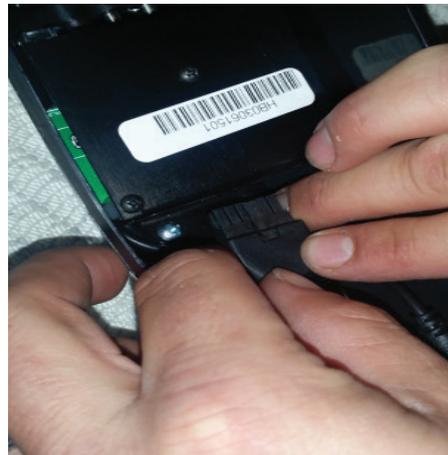
See drill templates at end of instructions.



2 Once drilled you will align Handle bars to the front casting of the machine. You will then proceed to mount the Handle Bar with the **10/24 x 1/2** screws you were provided with onto the machine.



3 Once your Handle Bar is mounted you will go ahead and connect the Handle bar cable you were provided.



Mounting Display

- 1** You will attach the remote bases with the screws you were provided with.



- 2** You will attach the display onto the display bracket.



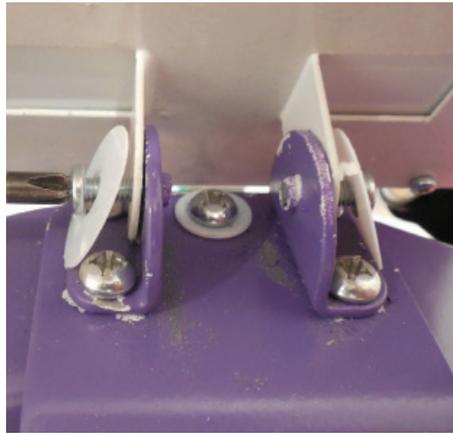
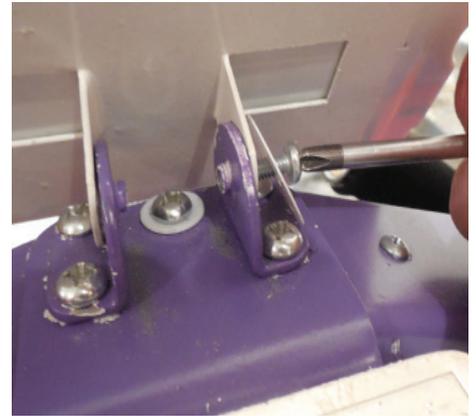
Note Colors may differentiate based on your machine.



Mounting Display

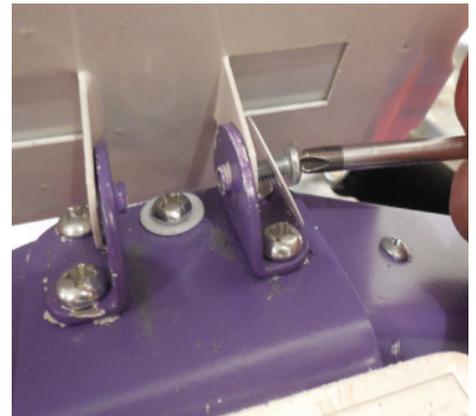
3 You will attach the remote bracket on to the remote bases that were previously installed.

Be sure to not tighten them to much otherwise you will end up not being able to move your display back and fourth.



Attaching 10" Display

1 Mounting the 10" display will be the same concept as installing the 7". Display



Pictures may differ from what you are actually doing, it is still the same concept.

Attaching 10" Display

- 2** Be sure to not tighten the screws to much as this may prevent you from being able to move your display.

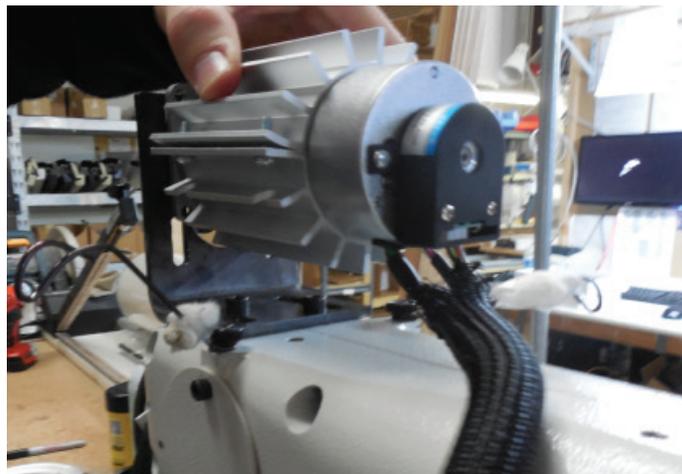


Installing Motor

- 1** You will need be mounting the motor in the exact same location where the previous motor was located.

To mount the motor you will be using the motor bracket you were provided with, you will be using **2 of the original screws you removed from the previous bracket.**

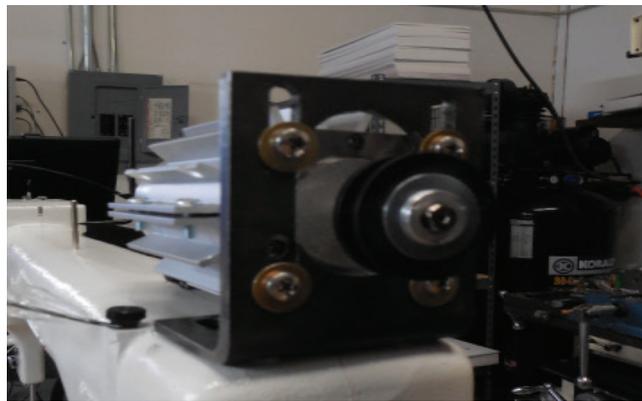
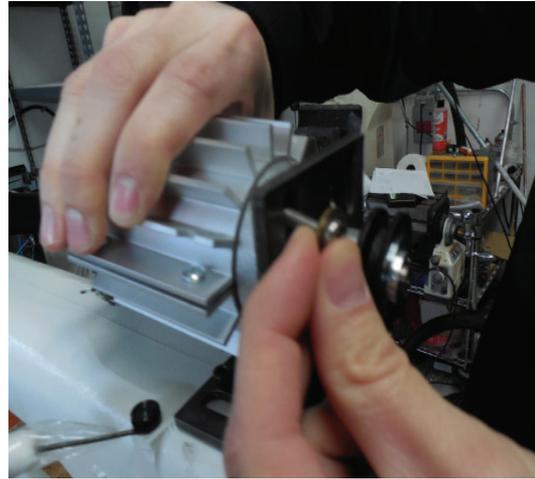
Once attached you will proceed to mount the motor. Ensure that the wires are facing downward like the picture portrays.



Installing Motor

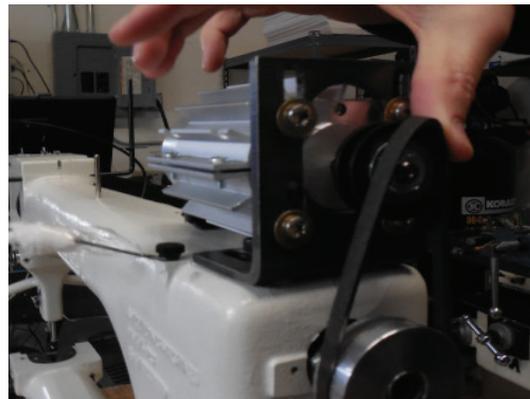
2 You will then use the screws you were provided with to hold the Motor in place, you will also need to make sure you use the washer that were included with your screws.

Be sure to **not tighten down the screws**, as you will need to go back to install the belt that runs from the pulley to the shaft of the machine.



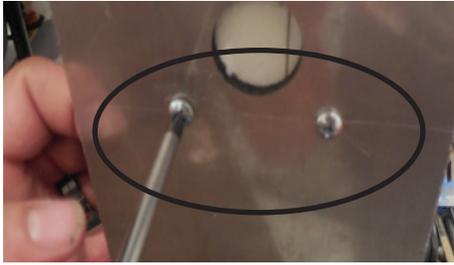
3 Now you will install the belt, you can either use the belt that originally came with the machine or you can use the one we have provided.

Ensure that Once installed you will go back and lift the motor so that the belt has tension on it, keep in mind that it shouldn't be as tight as a piano string but not to loose that it falls off once the motor is moving.



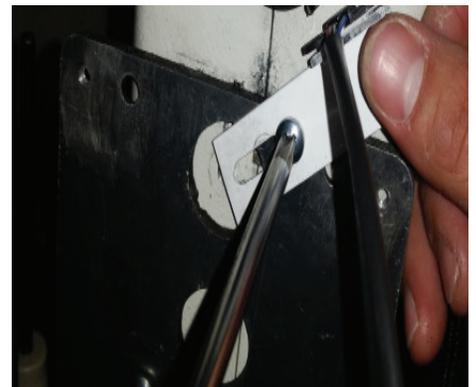
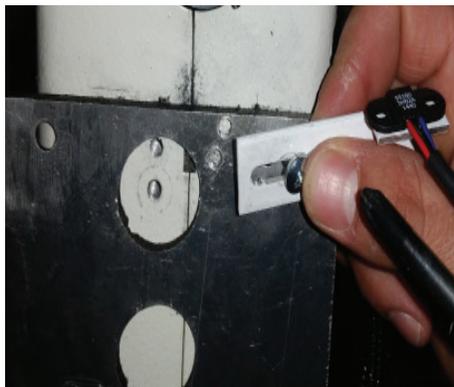
Mounting Metal Plate

- 1 To install the PCB box you will need to drill two holes in the casting of your machine. Next you will be mounting the metal plate to back of the machine.



Attaching Magnetic Index

- 1 After you have installed the Metal plate to the back of your machine you will proceed to install the magnetic index. You will start by attaching the Metal Index bracket to your machine. Be sure to tilt the bracket upward.



Attaching Magnetic Index

2 Now you will install the 2 Piece collar to the shaft of the machine.

Before doing so, ensure that the need is in the up position, other wise the timing will be off when your machine completes a rotation.



After everything is installed be sure that there is about a **1/4 gap** in between the **Index sensor and the magnet** itself. Other wise your readings will be off.



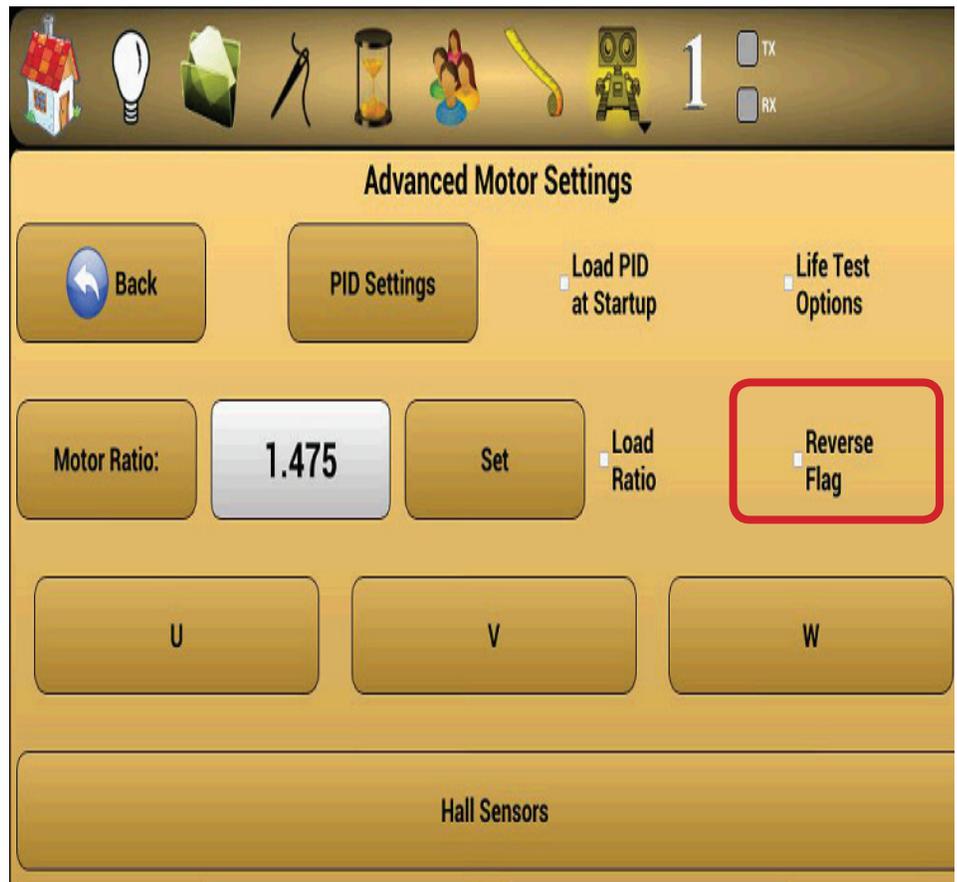
3 Ensure that the “Reverse Flag” box is **unchecked** for the index to work properly.

For Android this setting is found in the Motor Settings menu. Select the File Icon—Diagnostics—Motor Settings—Additional settings.

Other displays will follow the same steps, but will be prompted for a password.

When prompted, enter “motor”

Image may vary in appearance from your display



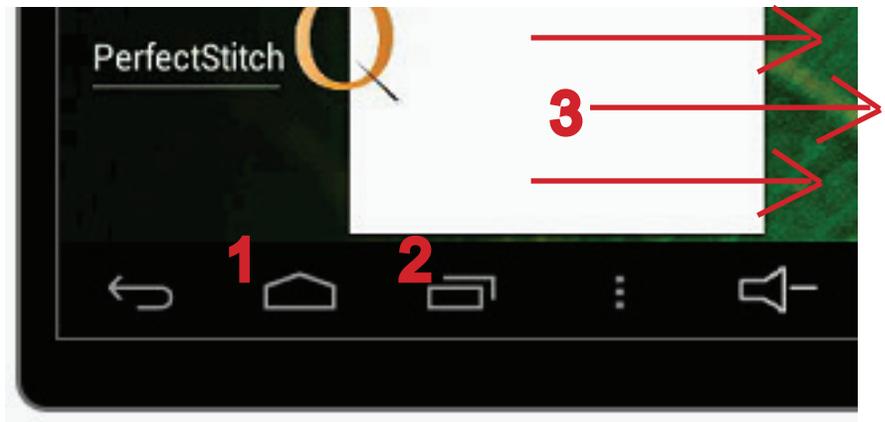
Attaching Magnetic Index

- 4** If the flag is checked on bootup, follow these steps to uncheck.

After unchecking “Reverse Flag,” turn off the machine/PCB box.

This will power off the display for all non android displays.

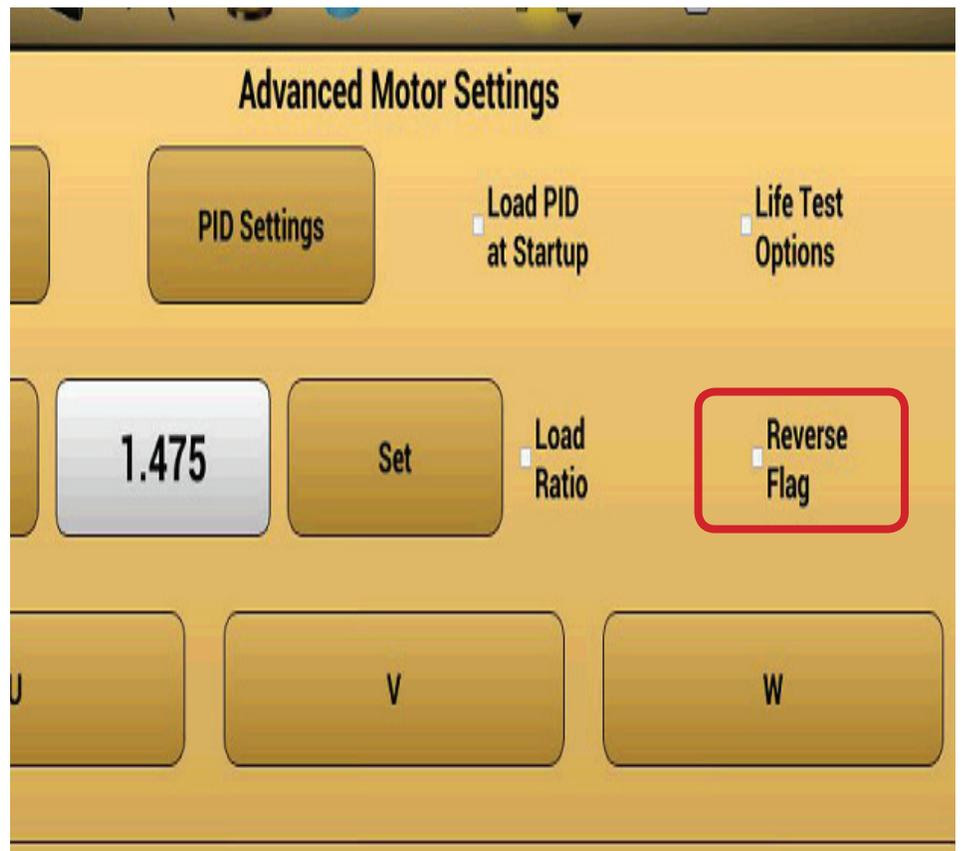
After turning the machine off, Android users will need to reboot the app by 1.selecting the Android “Home Icon,” 2.then selecting the Android “Open Application Icon” (looks like two overlapping rectangles) and 3.swiping Perfect Stitch off the screen.



- 5** Power everything back on and open the Perfect Stitch application.

When you go back into the Motor Settings you should see the unchecked Reverse Flag setting has been saved, and the index should now count properly.

If the index is not counting with the Reverse Flag unchecked, then **check** Reverse Flag and repeat these steps.



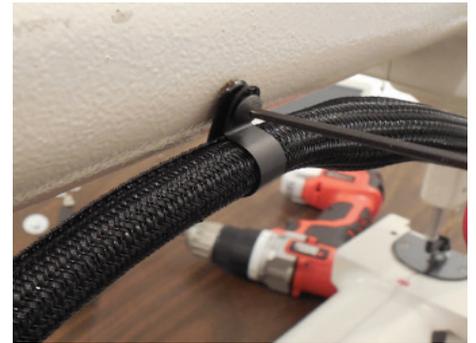
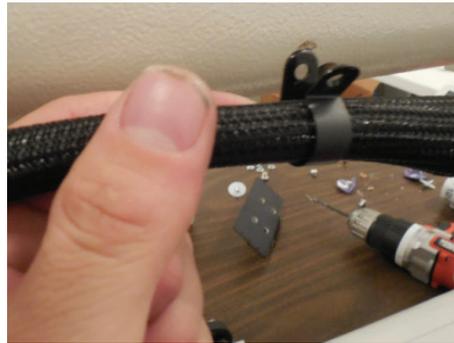
Installing Nylon Wrap

- 1** Once wiring is done you will proceed to install the black nylon wrap. You will start by removing the two screws on the side of the machine.



Remove these screws

- 2** You will stick the wires in the nylon wrap and place a loop clamp that will be mounted directly onto the machine like the pictures portrays.



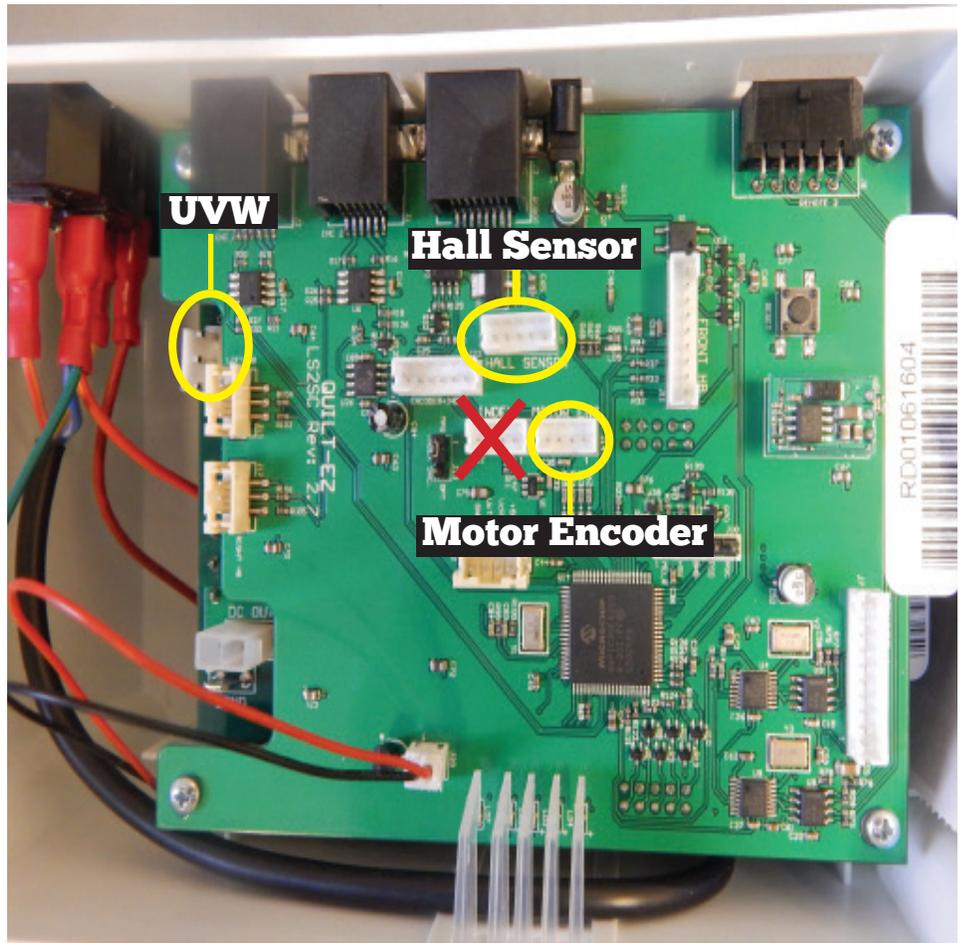
Attaching PCB Box

1 Connect Motor Wires

Connect the motor wires as shown at right.

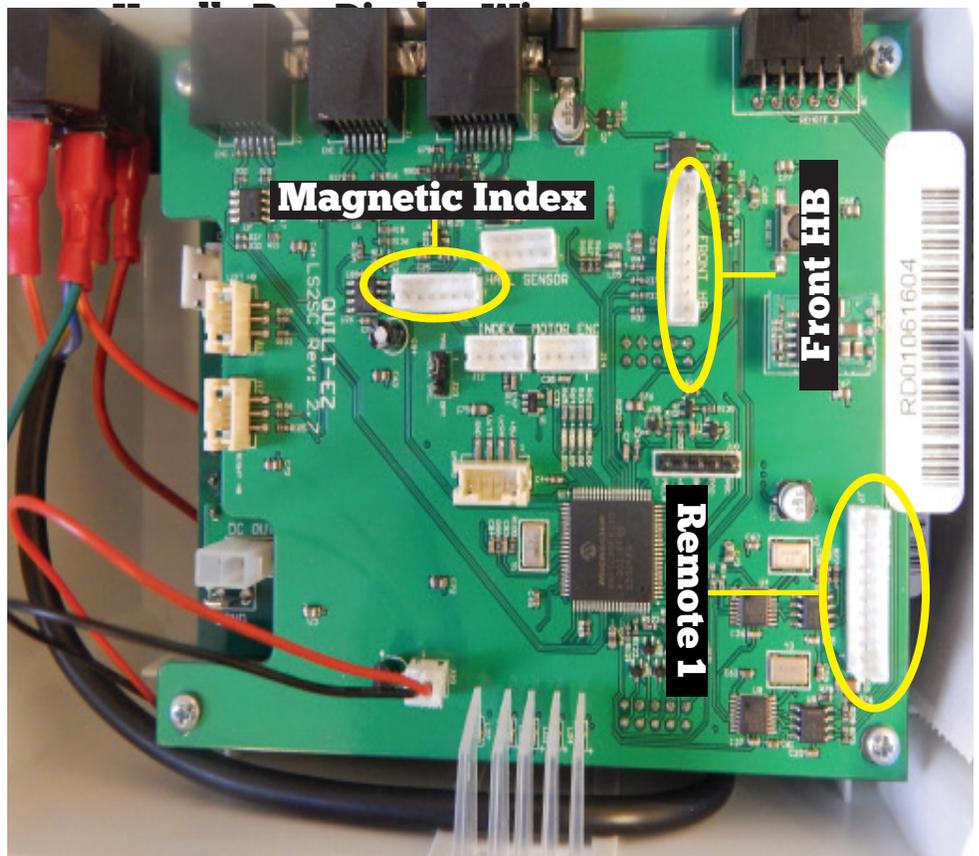
Each of the ports will be labeled. Be sure to plug into the correctly labeled ports on the PCB.

Motor Wires



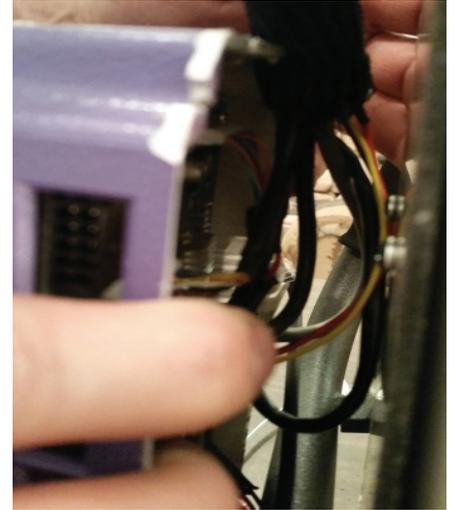
2 Connect Index, Handle Bars

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.



Attaching PCB Box

2 You will start mounting the PCB Box to the plate you previously installed. Make sure the wires come out through the top of the PCB Box like the picture is showing.



Note Colors may differentiate based on your machine.

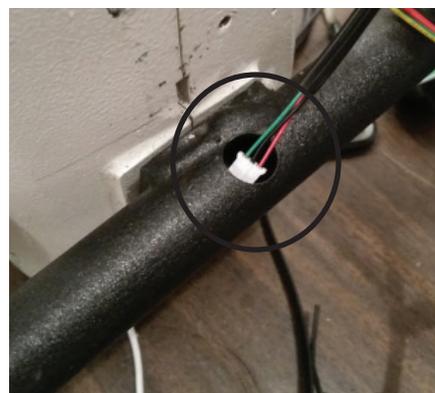


Attaching Handle Bars

- 1** You will be drilling into your rear Handle Bars using a number **30 Drill Bit**.



- 2** You will use the button cables you were provided with and feed them through the middle of the bar.



- 3** After you will proceed and install the provided foam grip, you may have to wet the inside of the grip in order to slide them onto the bar.



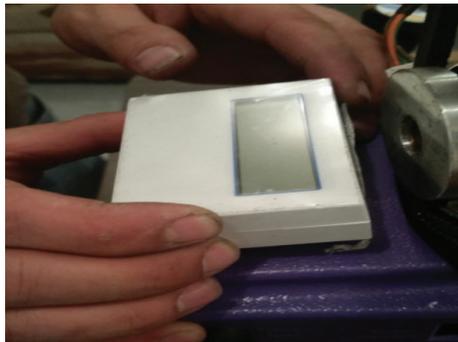
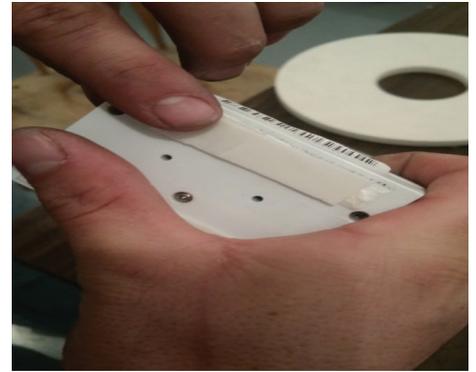
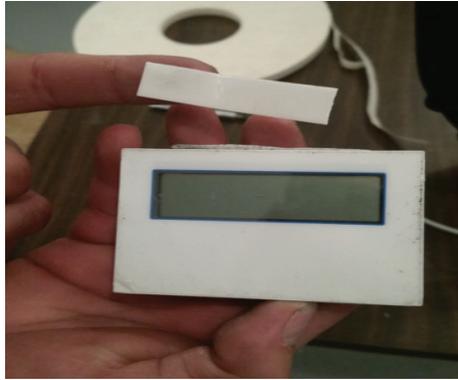
- 4** You will then screw the buttons down to the bar using the provided screws.



Rear Remote

1 You will be placing the rear remote on top of the PCB Box.

You will be using the double sided sticky tape you were provided with in order to stick it on top.



2 After the Rear Remote is properly installed you will proceed and connect the Handle Bar cables.





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