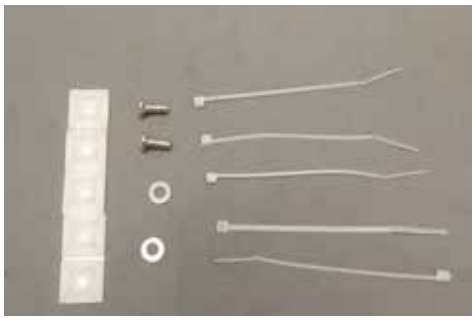
How to Attach Butler Robotics Juki QVP 2200

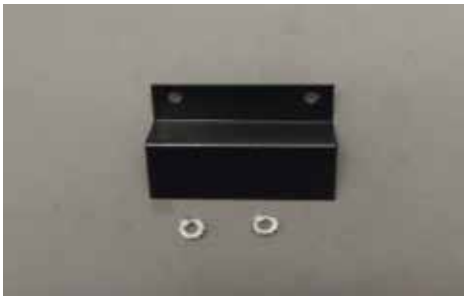
Revision:08/16/16

In order to accommodate all machine types we use universal parts bags, not all parts will be used in every installation.

Bag #	Contents	Picture
M1	1- Motor bracket 1- Small mounting bracket 2- M5 x 12mm screws 2- M5 K lock nuts 2- M5 flat washers	
X1	1-White Belt *(12')* 4 - Plastic Belt Clamps 4 - Screws *(4-40 x 0.5)*	
Y1	1 - Black Belt *(86")* 4 - Plastic Belt Clamps 4 - Screws *(4-40 x 0.5)*	
I17	2- #8 lock washers 1- Bearing 1- #10 fender washer 1- 8-32 x 1/2" screw 1-10-24 x 1/4" screw	
Z1	5 - Zip Ties 5 - Plastic Anchors 2 - Washers *(M5 Flat)* 2 - Screws *(M5 x 12mm*	

Z3

1 - Motor Pulley Cover
2 - Nuts *(M5 K-Lock)*



D3

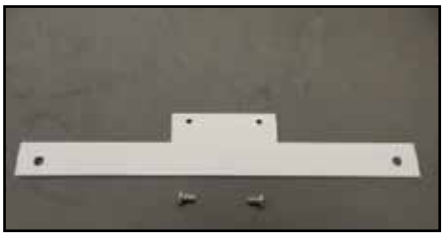
1 - Universal Display Bracket
4 - Screws *(M6 x 8mm)*
4 - Nuts (*M6*)
2 - Screws *(8-32 x 0.5)*
2 - Plastic Washers

Y6

1- Carriage bracket (secondary)
1- M5 eye bolt
4- M5 K lock nuts
1- 10-24 thumb screw
1- 10-24 x 1/4" screw
2-M5 x 12mm screws
2- M5 flat washers

Y8

1- Carriage bracket
2- M6 x 8mm screws



X5

4 - Metal Clamps
2 - Eye Bolts *(M5)*
4 - Screws *(M5 x 60 mm)*
8 - Nuts *(M5 K-Lock)*

Cables

Vary by machine

Attach the carriage brackets (Bag Y8 and Bag Y6)

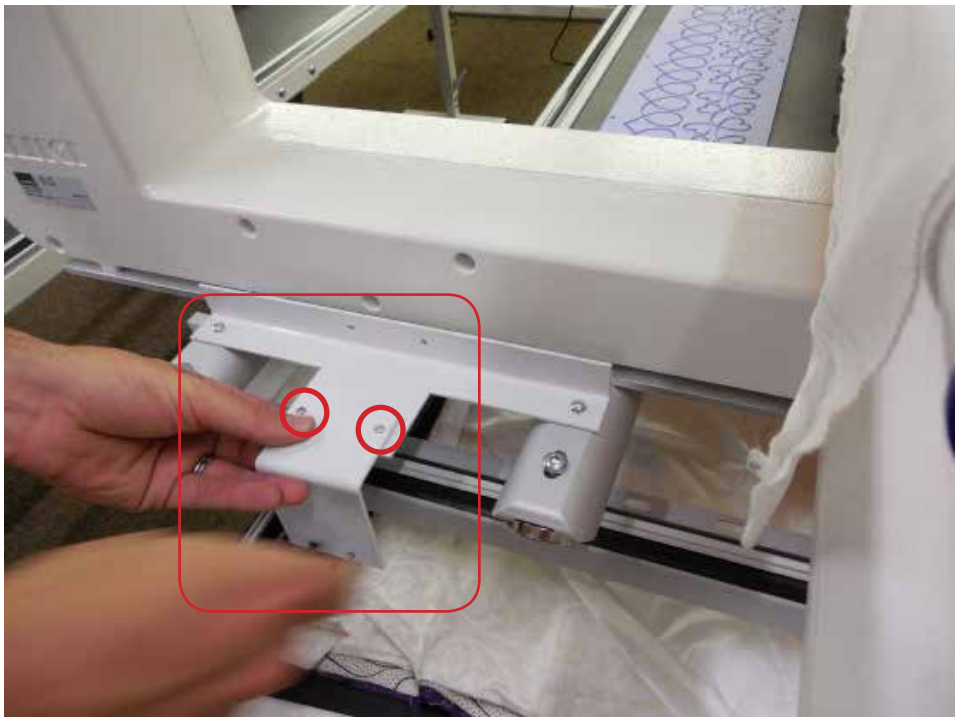
The two carriage brackets will attach to this side of the carriage.

1 Position the carriage bracket on the carriage so that the left and right holes align with those on the carriage.

2 Using a Phillip's screwdriver, attach the bracket with the two provided screws.

3 Position the secondary carriage bracket so that the left and right holes align with those on the carriage bracket and the adjustment knob is closest to the floor.

Use the slots on the bracket to adjust how far out the secondary bracket sits.



5 Using a Phillips screwdriver, attach the bracket with the two provided screws.

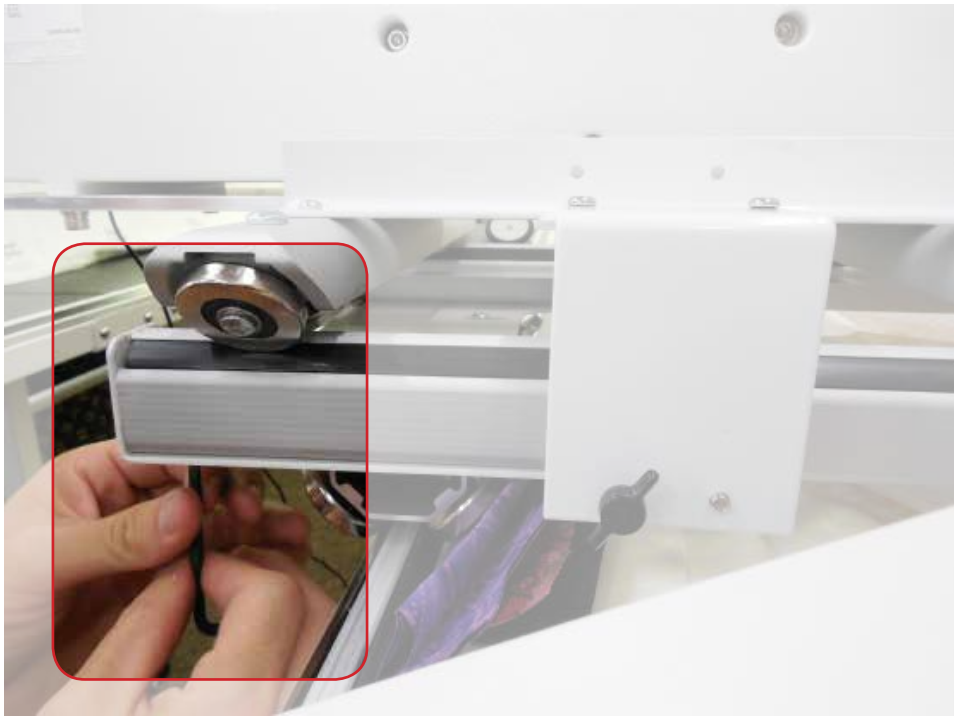
Use the slots on the bracket to adjust how far out the secondary bracket sits.

Attach the Idler Bracket (Bag I4)

The idler bracket will attach to the underside of the carriage.

1 Locate this bolt on the underside of the carriage.

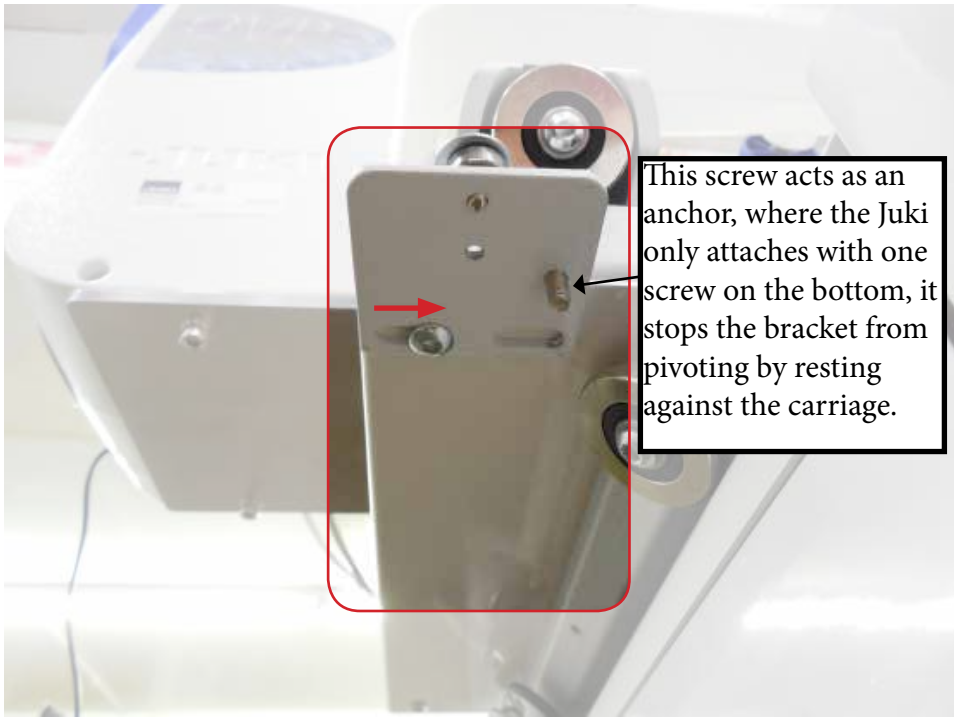
2 Using a hex key, remove the bolt.



3 Insert the removed bolt into the left slot of the idle bracket.

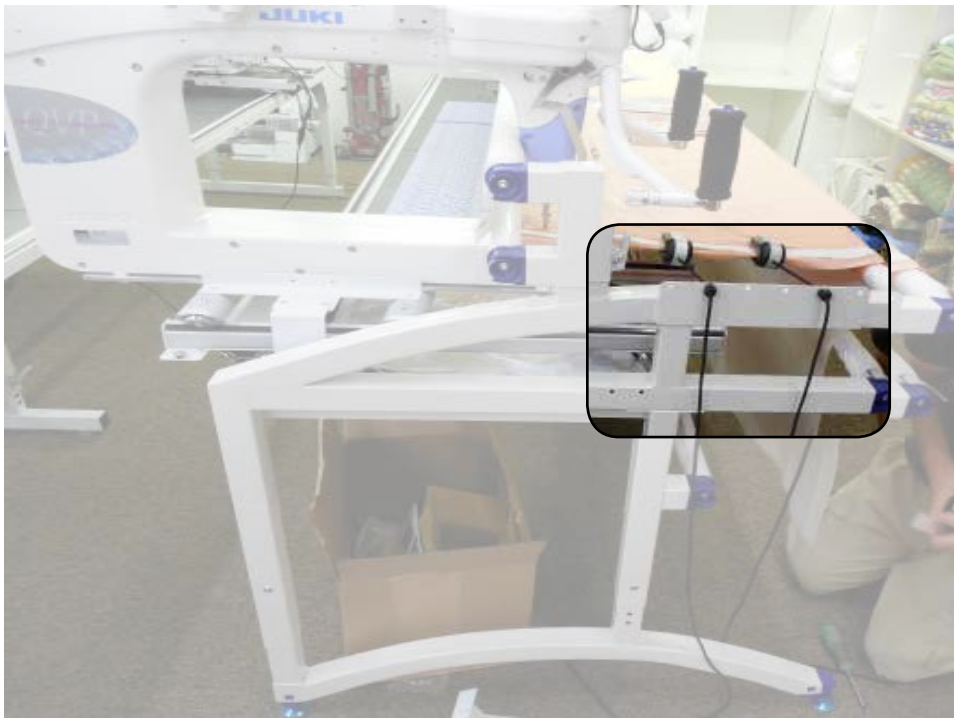
4 Using the hex key, reattach the bolt and idle bracket with the pulley facing up.

Ensure the bolt is attached in the farthest right position in the left slot of the idle bracket slot.



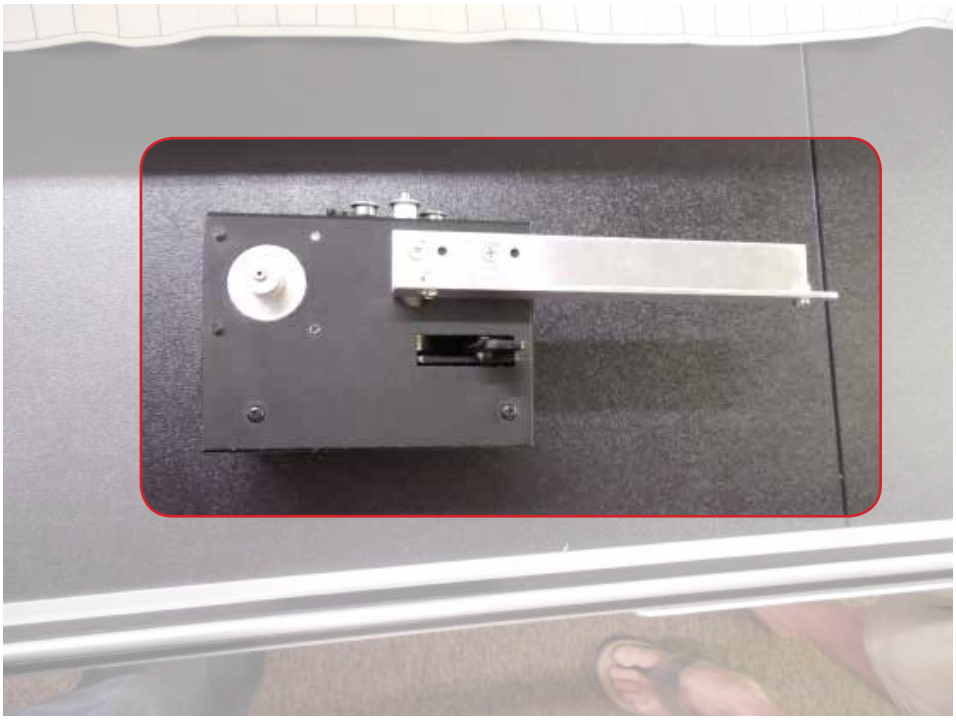
Attach the Motor Box (Bag M1)

The motor box will attach to this side of the carriage.

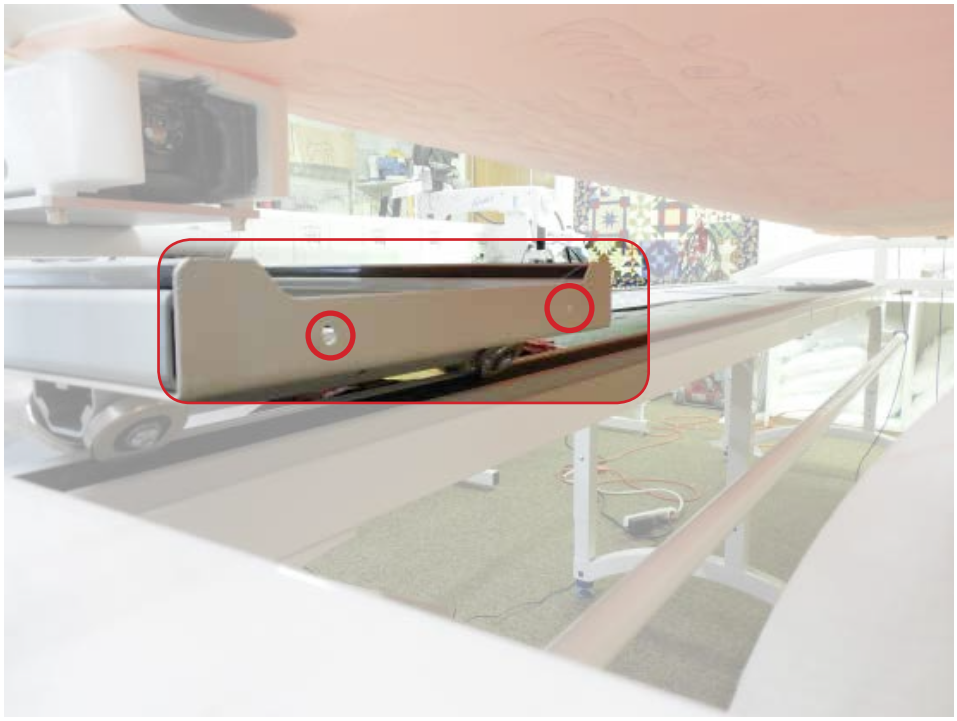


1 Using a Phillips screwdriver and the two provided screws, attach the motor box bracket to the motor box.

(Continued)



2 Align the attached motor box bracket with the two holes on the carriage.



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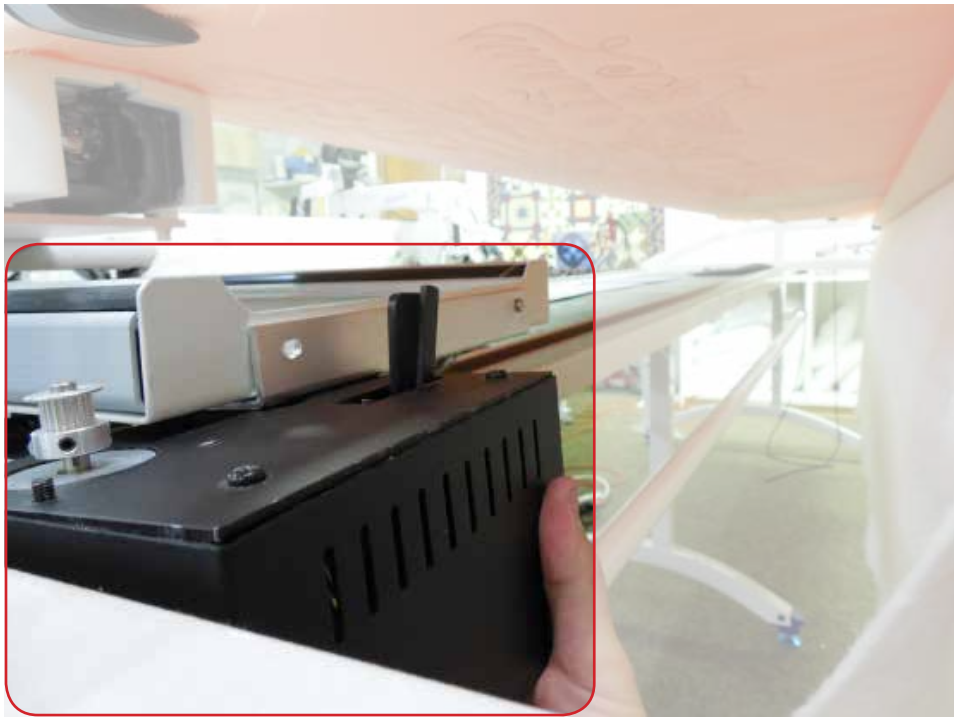


3 Using a Phillips screwdriver and the provided screws, attach the motor box bracket to the carriage.

To ensure proper spacing, first attach the right screw and then the left screw.

Attach the Black Belt (Bag Y1)

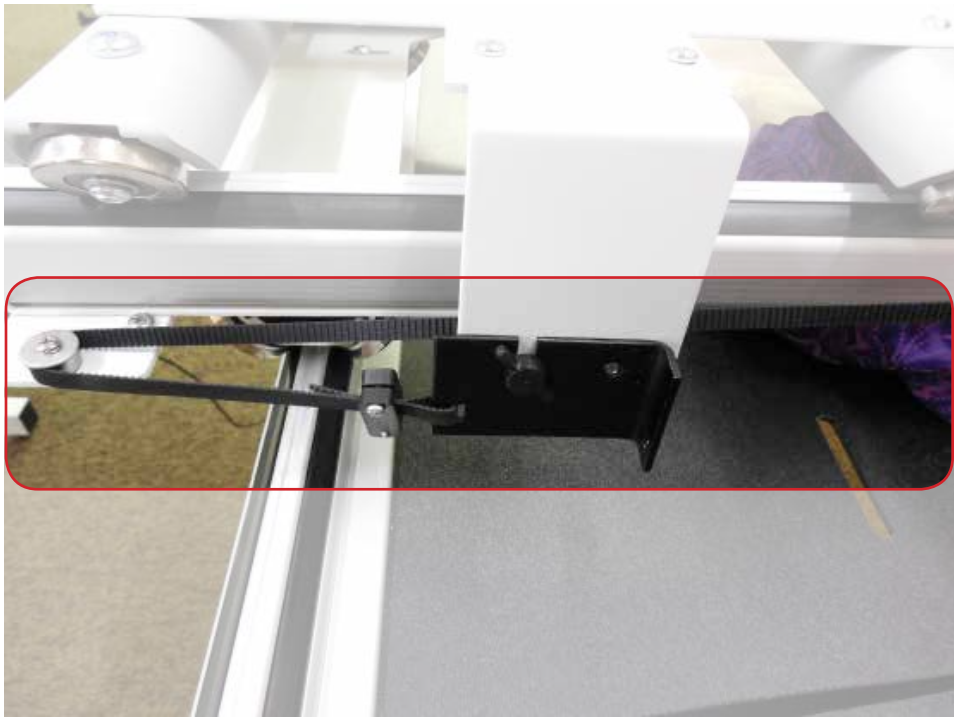
The belt bracket is attached to the secondary carriage bracket.

1 Use a belt clamp to attach one end of the black belt to the slot on the left side of the carriage bracket with the teeth facing the carriage.

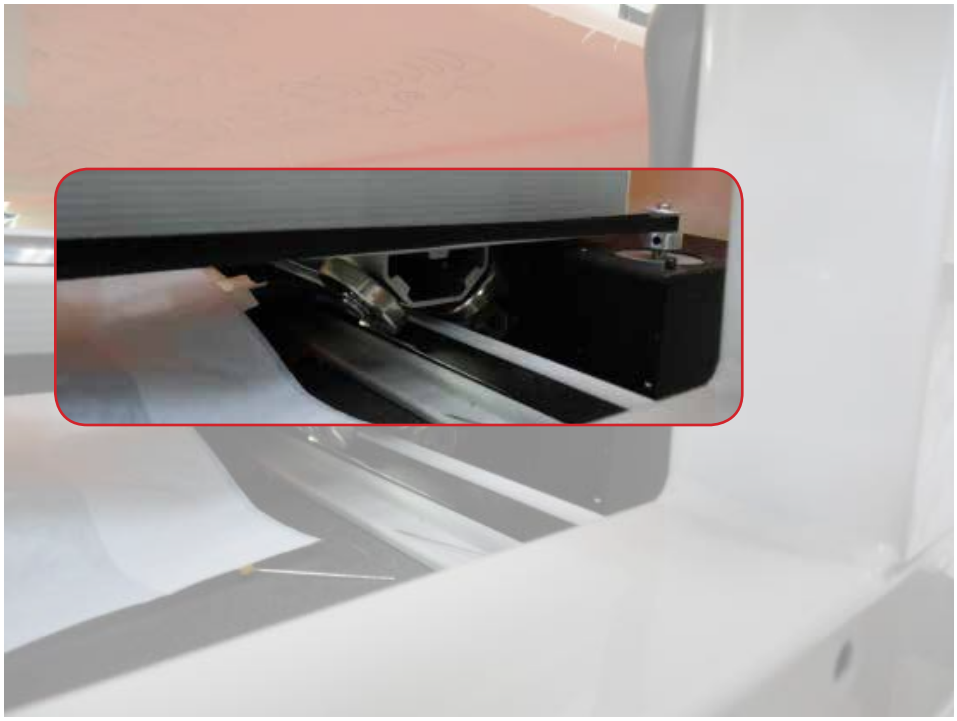
See Appendix A for help with belt clamps.

2 Run the belt around the rear idler pulley Making sure the teeth on the belt line up with the teeth on the pulley.

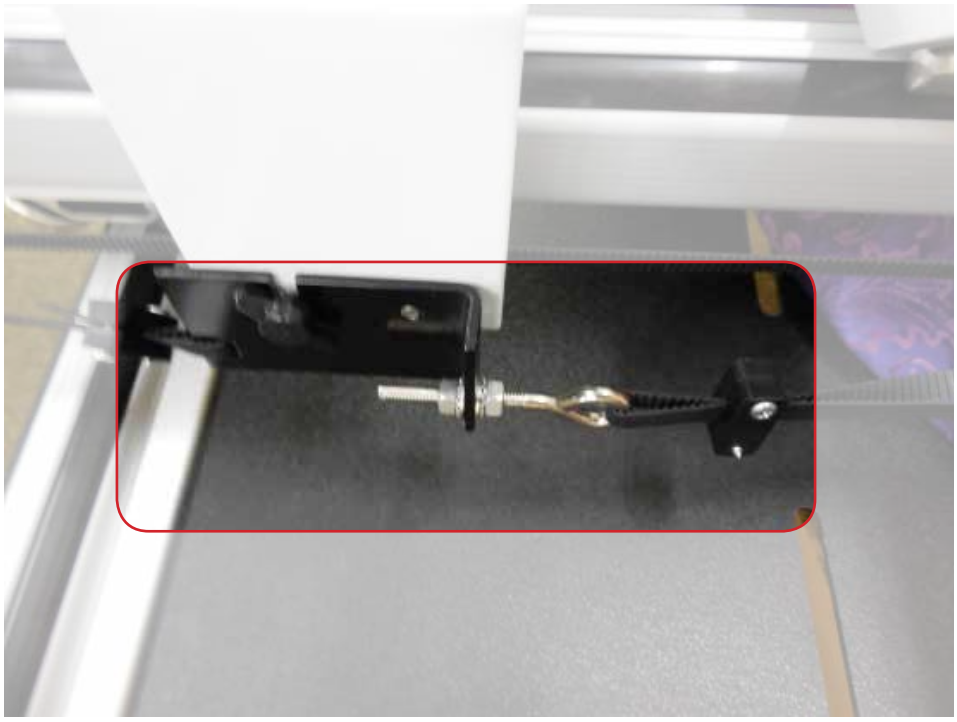
Then run the belt up toward the motor box behind the carriage bracket.



3 With the teeth facing toward the pulley, wrap the belt around the top pulley of the attached motor box.



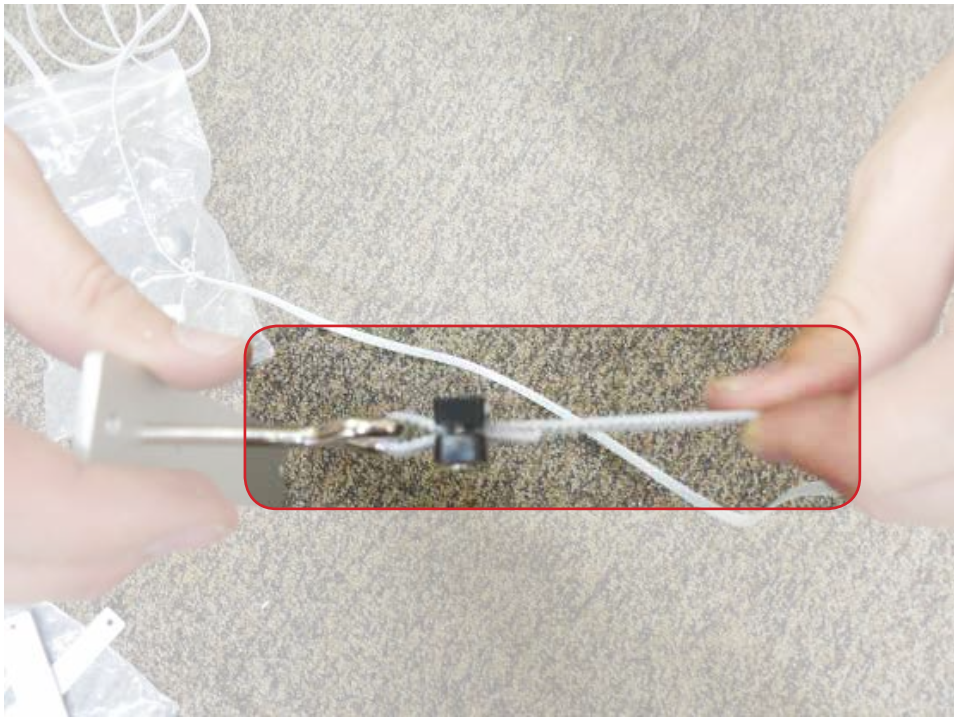
4 Attach the other end of the black belt to the eye bolt using the provided belt clamps as shown.



Attach the Length Belt (Bag X1 and Bag X5)

1 Insert an eye bolt into one of the four length belt brackets.

2 Thread the white timing belt through the eyelet, align the top teeth with the bottom, and attach the belt clamp.



3 Clamp a bracket on the other side of the frame bar and attach the two brackets using the provided screws.

Repeat for both sides.

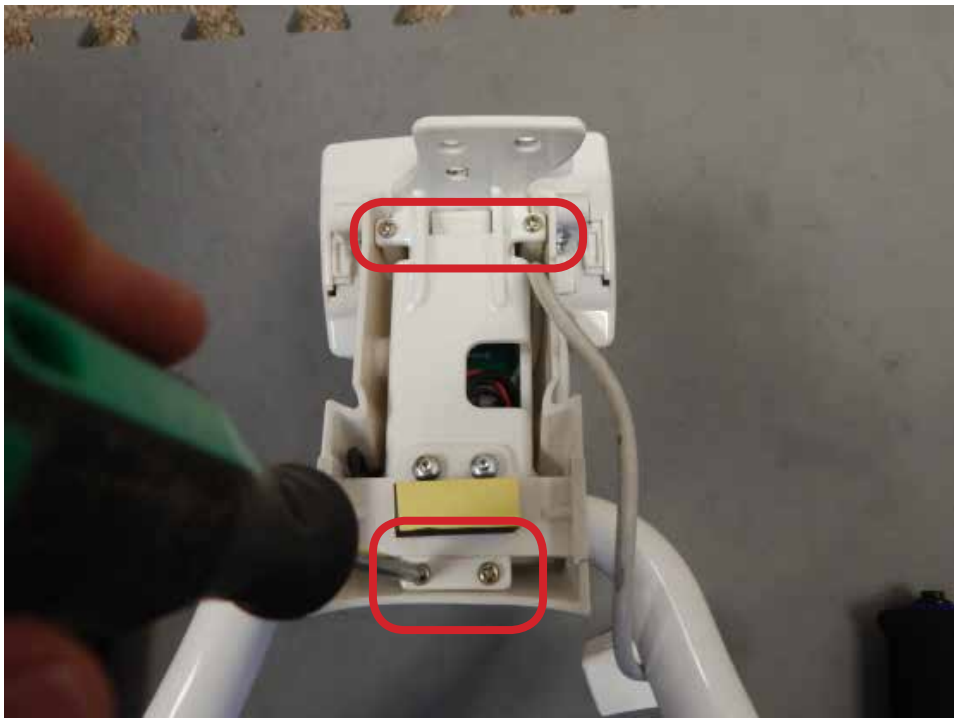
5 Release the belt lock lever and run the belt as shown with the teeth facing up.

Then reengage the lock lever.

Rewiring Front Handle Bars

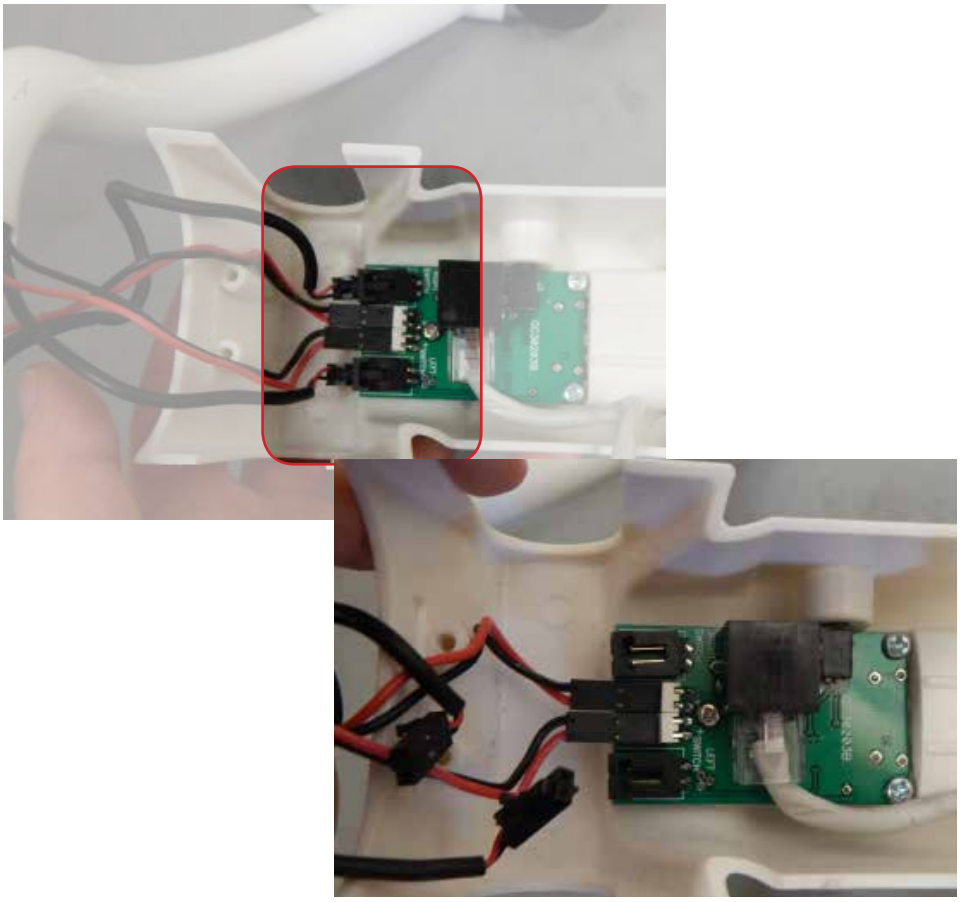
1 Remove the display and front handlebars from the machine.

2 Use a #1 Phillip's screwdriver to remove the four screws on the back of the handlebars.



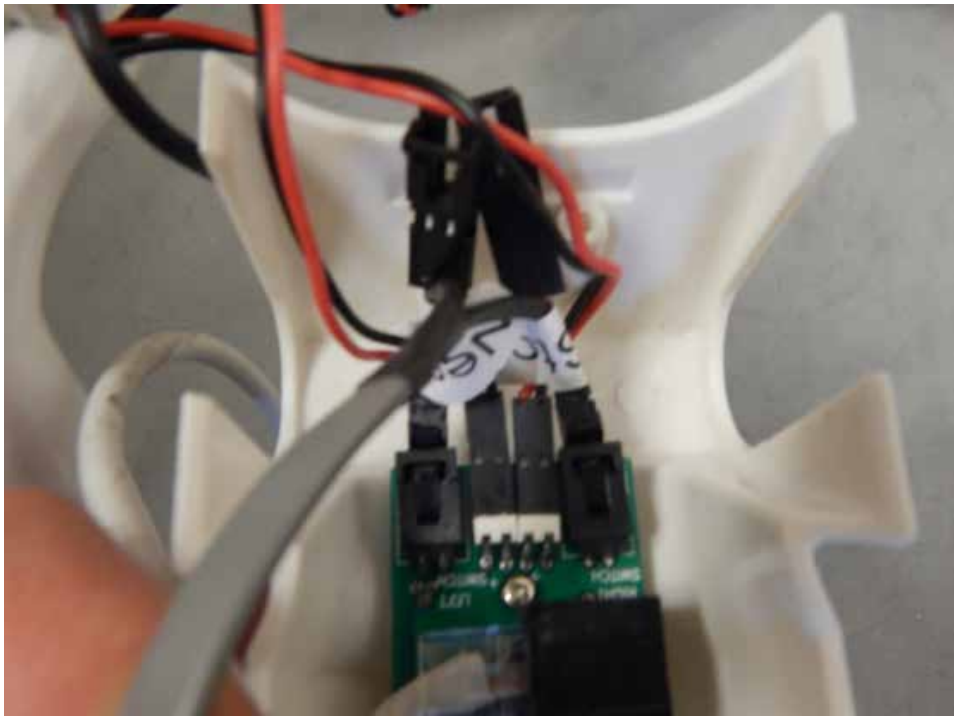
3 Inside the front handlebar cover is a circuit board with two connectors labeled right switch and left switch.

Pinch the clip on the top of the connector to remove both outer connections. Leave the connections in the center alone.



4 Take the provided handlebar cable and insert the male end of the Start/Stop wire into the port labeled Right Switch on the board.

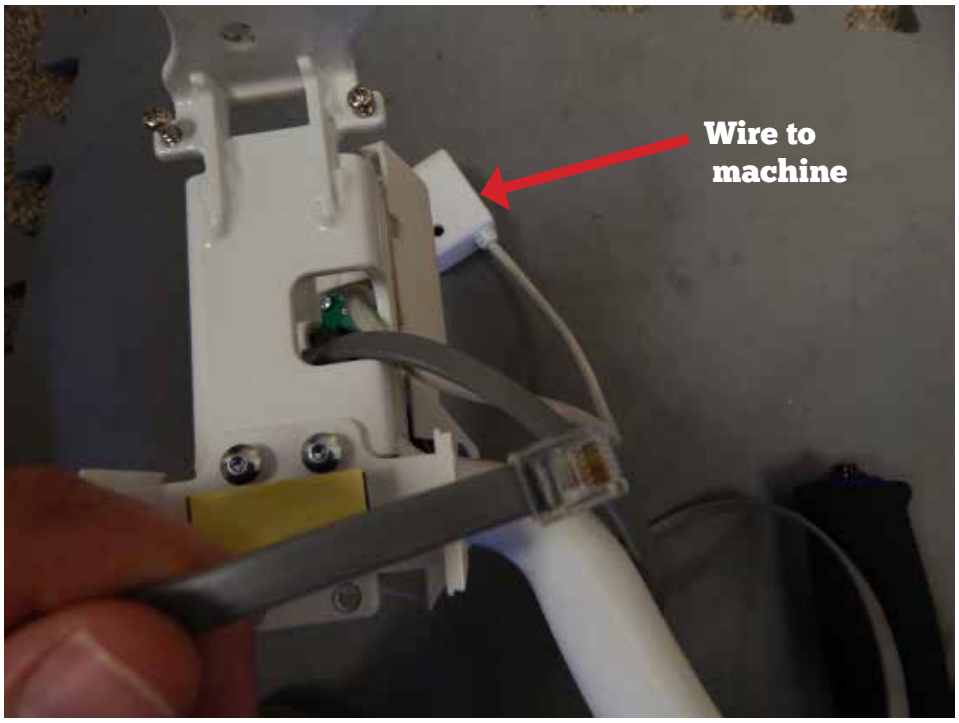
Then insert the male end of the wire labeled Needle Up into the port labeled Left Switch on the board..



5 Connect the wire coming from of the right handlebar removed in step 3 into the female end of the handlebar wire labeled Start/Stop.

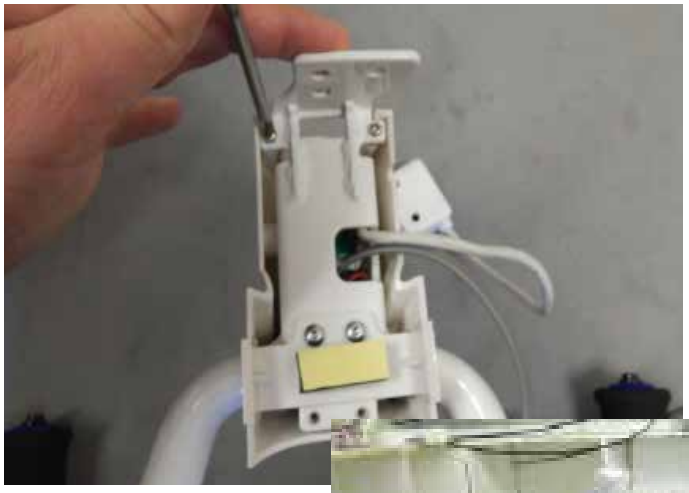
Connect the wire coming from of the left handlebar removed in step 3 into the female end of the handlebar wire labeled Needle Up.

6 Run the side of the handlebar cable with the RJ12 (like a telephone) connector through the gap in the handlebars with the wire that the plugs the handlebars into the machine.



7 Reinsert the screws to put the cover back on the handlebars.

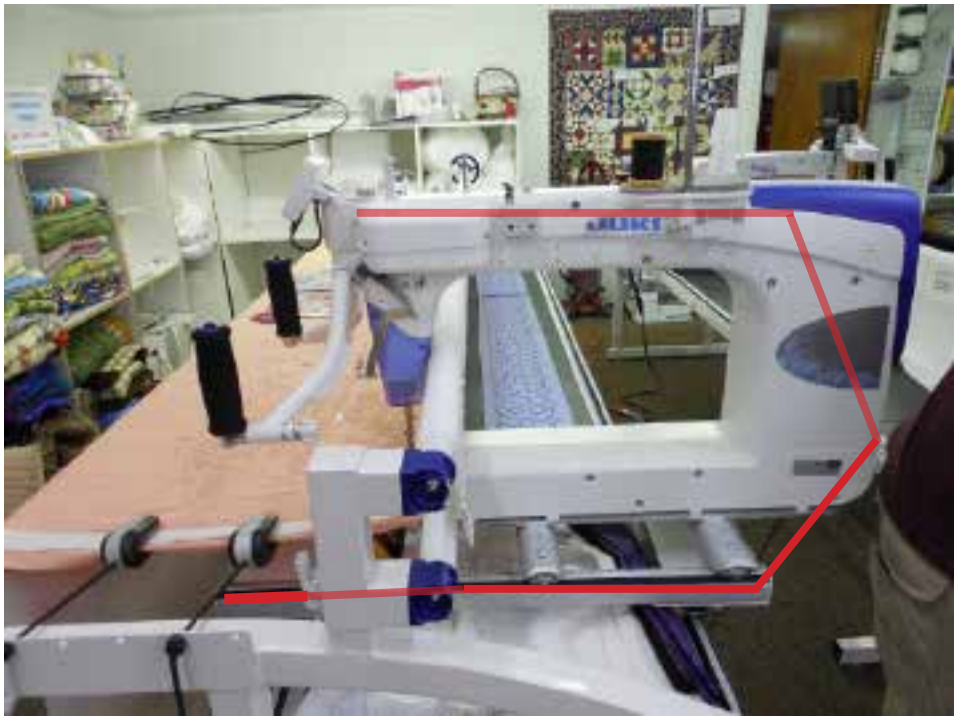
Then reattach the handlebars to the machine.



8 Run the handlebar wire from the handlebars along the left side of the machine, around the back and along the carriage.

Make sure that the cable is out of the way of moving parts.

Do not secure with anchors and zip ties at this point.

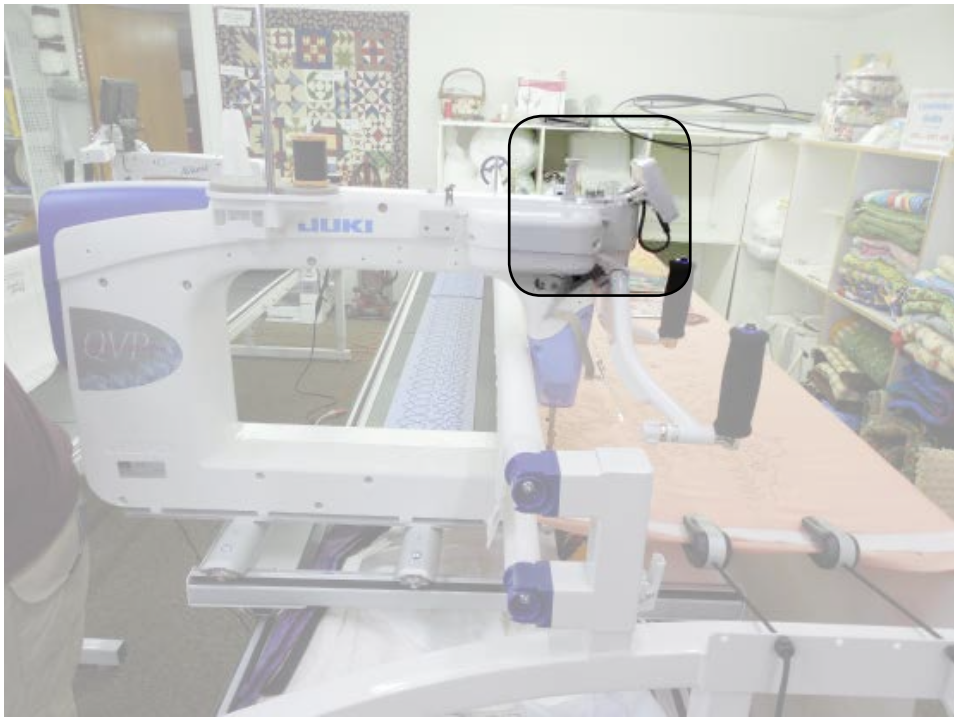


9 The remaining unconnected wire will connect to the motor box port labeled handlebars.

Note: It is possible to attach the handlebar wire to the rear handlebars, but Juki machines can only operate the handlebars with the Juki display connected to them. If the handlebar cable is connected to the rear handlebars, then in order to use the robot the Juki display must be connected to the rear handlebars as well.

Attach Robotics Display (Bag D3)

The display bracket attaches immediately behind the Juki display.



Attaching Android Tablet

1 Attach the Android holder to the display bracket with the 8-32 x 1/2" screws with the poly disc between the two brackets.

2 Remove the three screws on the head of the machine. Set screws aside to be used later.

Mount the display bracket on top of the handlebar bracket as pictured.

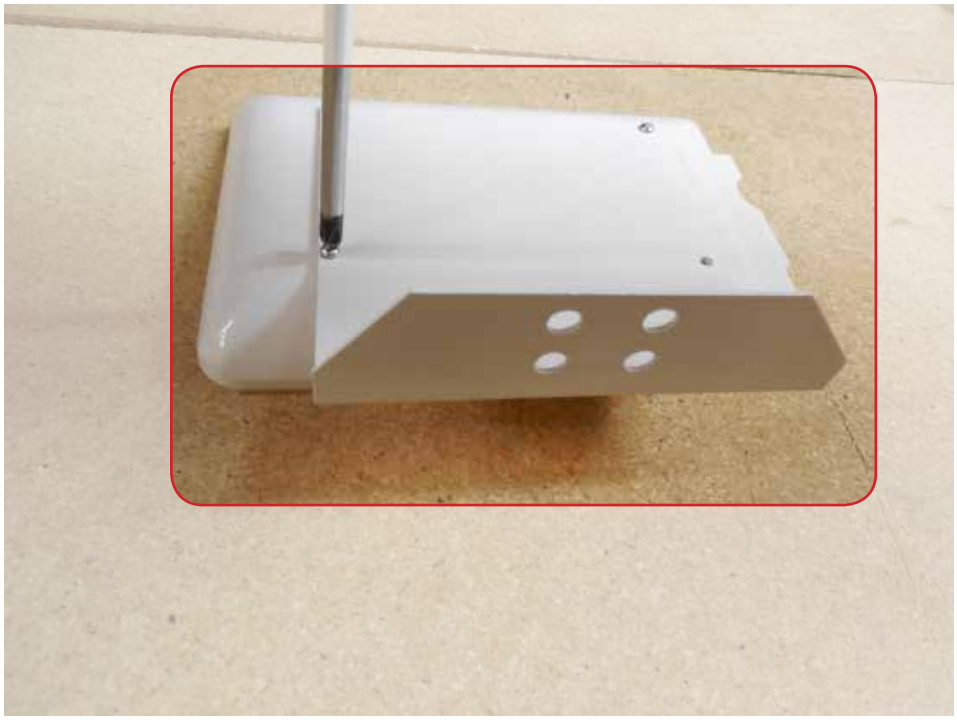
3 Attach the display bracket to the machine using the screws removed in step 2

For further details on how to install the 10" Android please see the "Installing Android Guide."

Attaching Standard Display

1 Insert the SD card into the display.

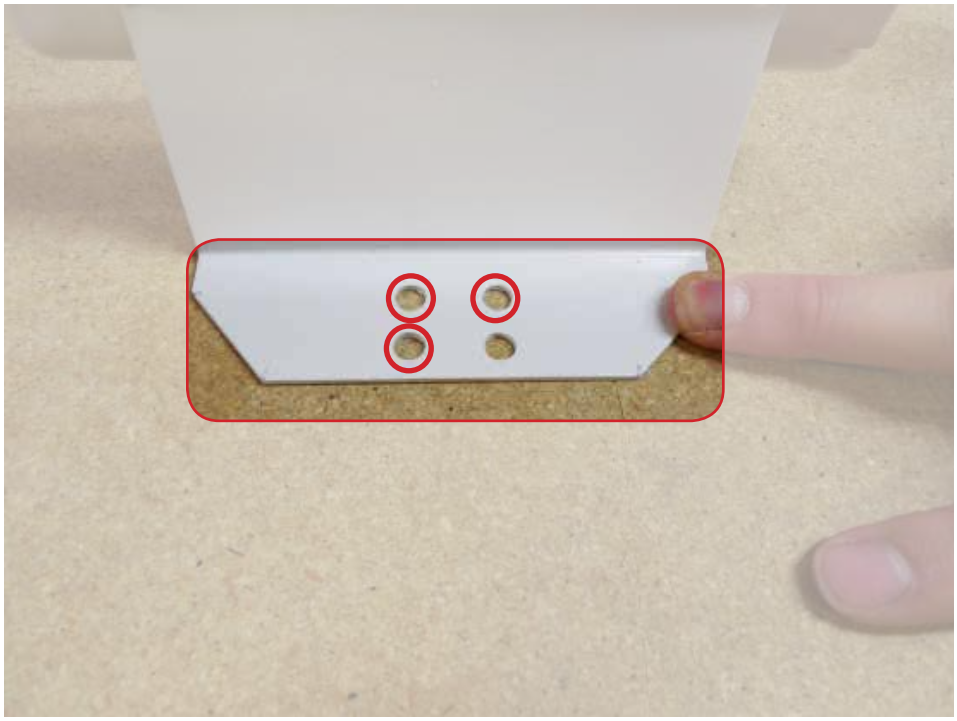
Using the Phillips screwdriver and provided screws, attach the display bracket to the display.



2 Using a hex key, remove the three bolts behind the Juki display.

When removing the last bolt, use one hand to stop the handle bars and display from falling.

3 With the display facing forward, align the display bracket with the three screw holes behind the Juki display and replace the screws removed in step 2.



Connecting cables.

Connect the power cable

1 Plug the power cable into the port on the motor box.

Ensure that the cable is running towards the top of the motor box and not towards the ground.

2 Run the power cable along the carriage to the back of the machine, make sure that the cable is out of the way of moving parts then plug it in to the power source.

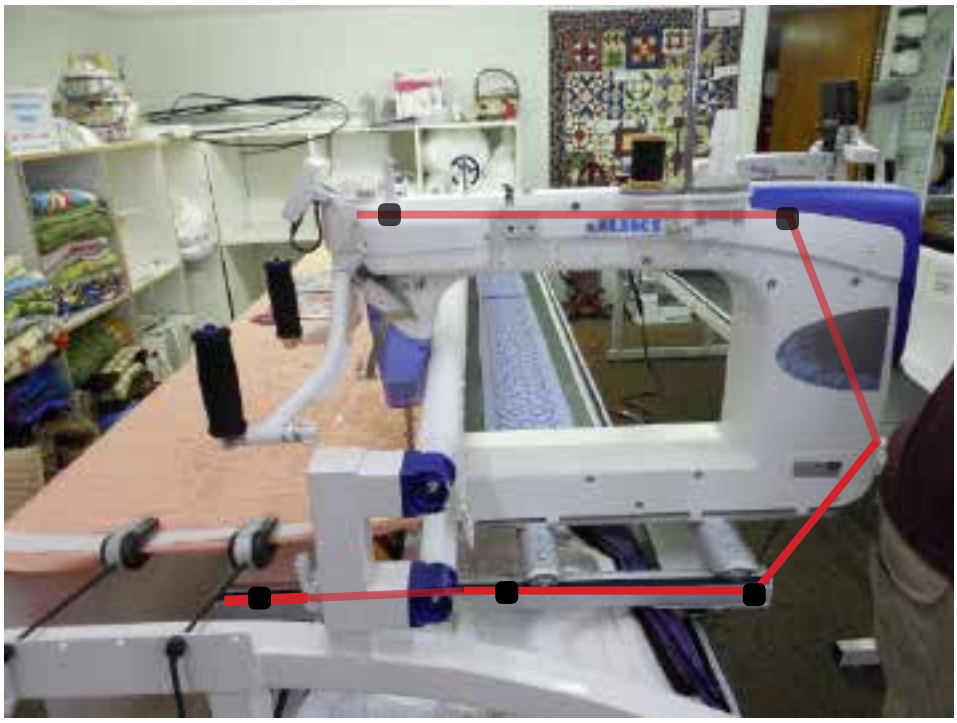
Connect the RJ45 Network Cable

1 Plug the network style cable into the "Remote" port on the motor box.

6 Run the cable around the back of the machine up to the display.

Make sure that the cables are out of the way of moving parts.

Use the provided anchors and zip ties to secure the cables to the carriage and the machine.

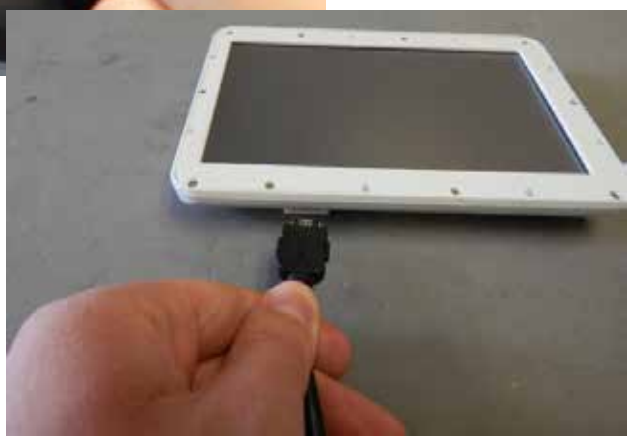


■Represents recommended contact points for anchors and zip ties.

7 Connect the other end of the display cable into the display.

Android cables will plug into the RJ45 network connection on the hub on the back of the tablet.

Standard displays will plug into the slot on the bottom of the display.

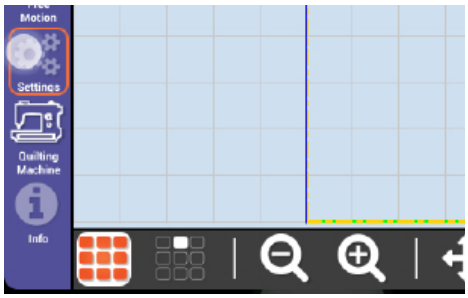


Set Machine Type

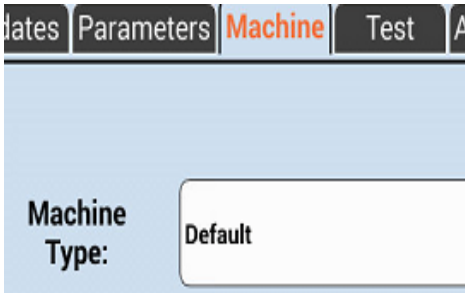
If you have a QuiltEZ Perfect Stitch Regulator, then set your machine type to Default.

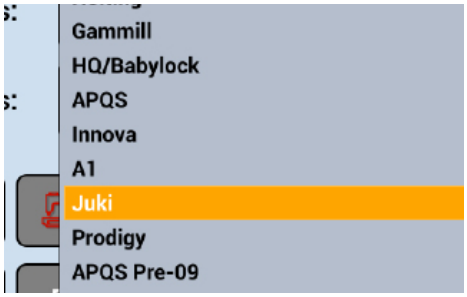
Android Tablet:

1 Power on the display, go to **Settings** > **Machine** tab.



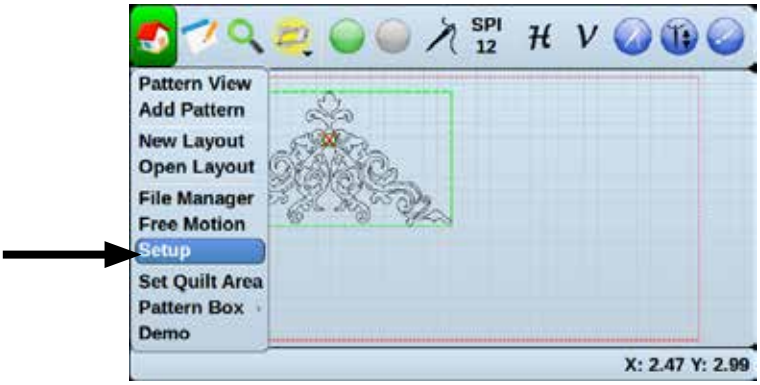
2 Select Machine Type and set the machine type to Juki.





Standard Display

1 Power on the display, go to **Home> Setup**



2 Go to the **Advanced** tab and set the machine type to Juki.

Check Belt Tension

Check Belt Tension

1 Set the machine in the middle of the frame.

The white belt should have between 1” and 1.5” of play in the belt.

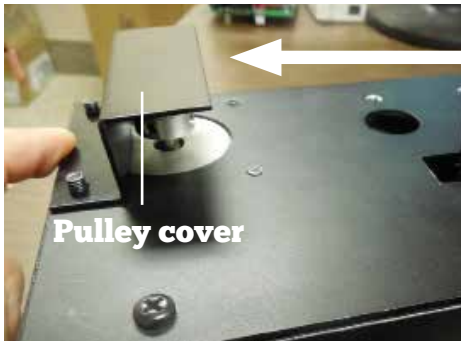
The black belt should have approximately 1/4” of play.

2 To tighten the belts use the nuts on the eye bolts.

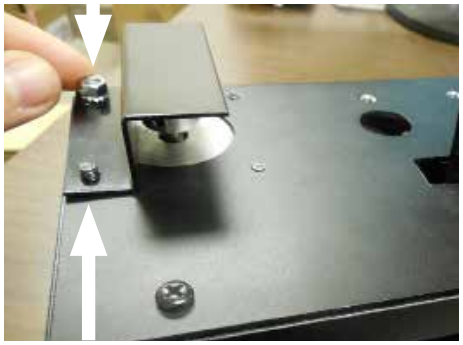
Loosen the nut closer to the eye and then tighten the other nut to increase belt tension.

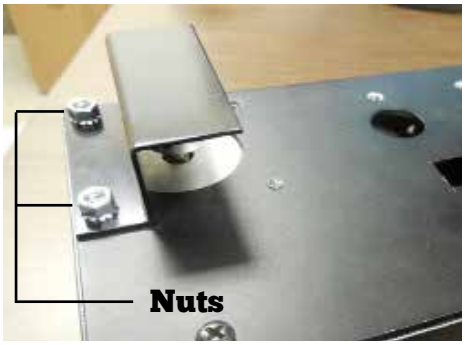
Motor Pulley Cover (Optional)

1 Place cover onto two screws near the top motor box pulley.



Tighten nuts onto top of screws to secure the Pulley cover.





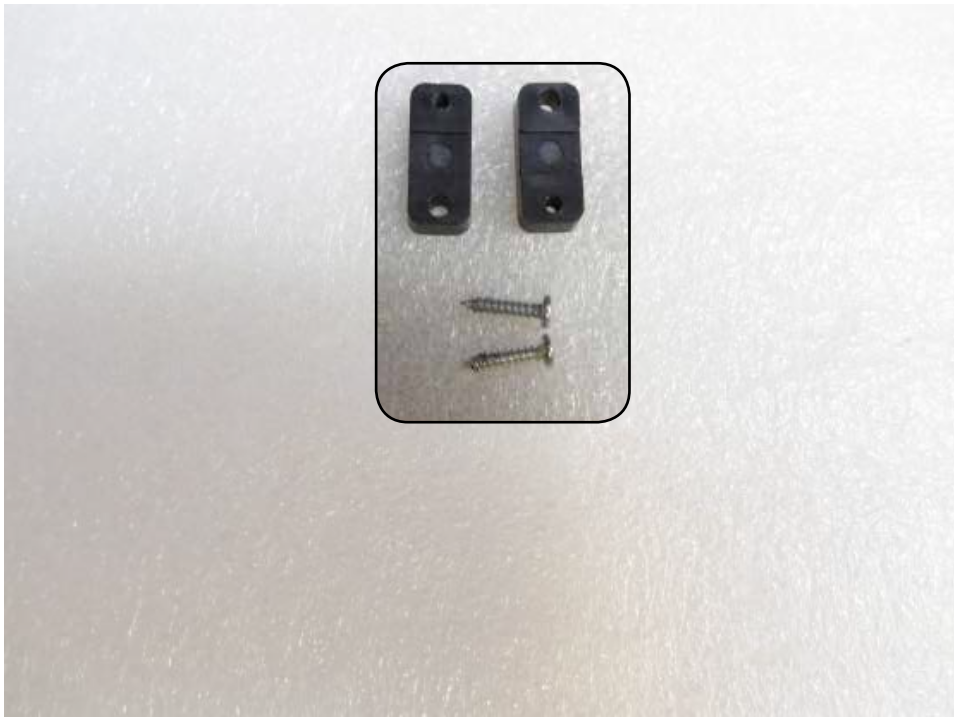
What is the Pulley Cover for?

The Motor Pulley cover is an extra safety precaution to protect your fingers from getting entangled in the belt.

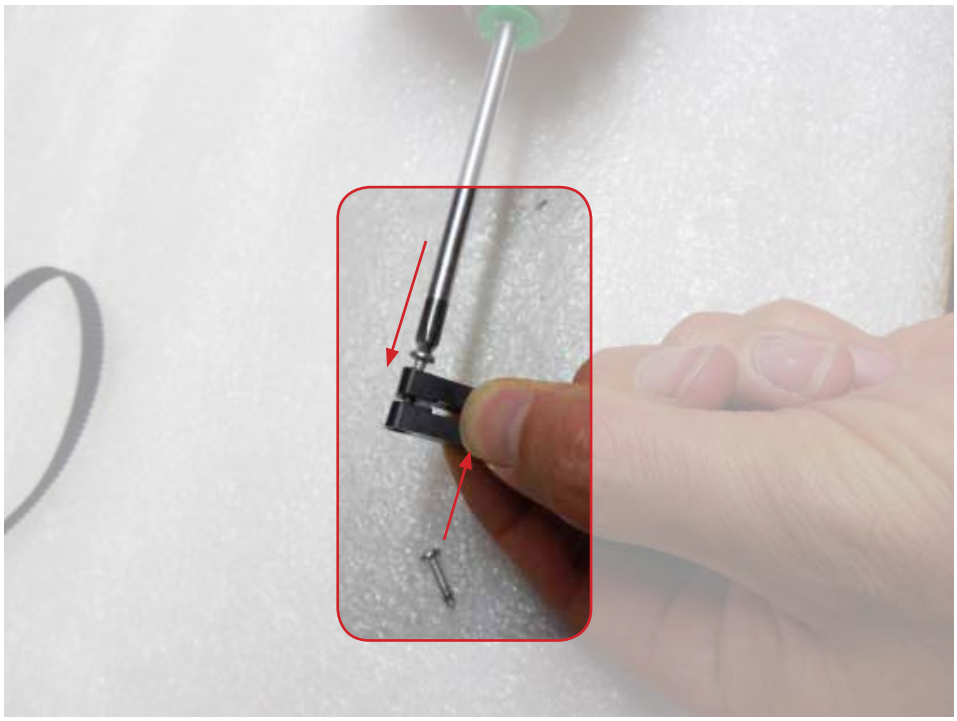
We recommend it is installed after all your belts are installed and connected to the pulleys.

Appendix A - How to use Belt Clamps

A belt clamp consists of two clamps and two screws.



1 Using a Phillips screwdriver, insert each screw on opposite sides of the clamps and tighten halfway.



2 Thread the belt between the clamps, loop it around and reinsert it between the clamps.

3 Align the belt teeth, then finish tightening the clamps.

This can also be used to increase belt tension.

Appendix B- Additional help

Power on the robotics

Use the power switch located on the side of the motor box with the ports to power the motor box off and on.

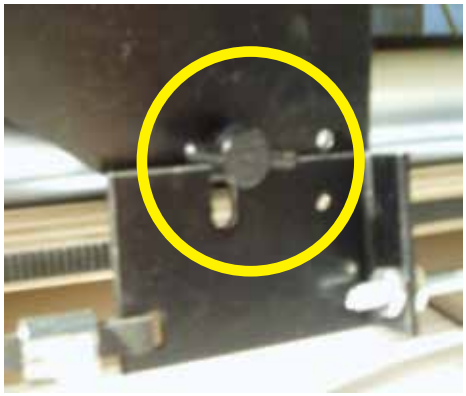
Disengage belts for free motion

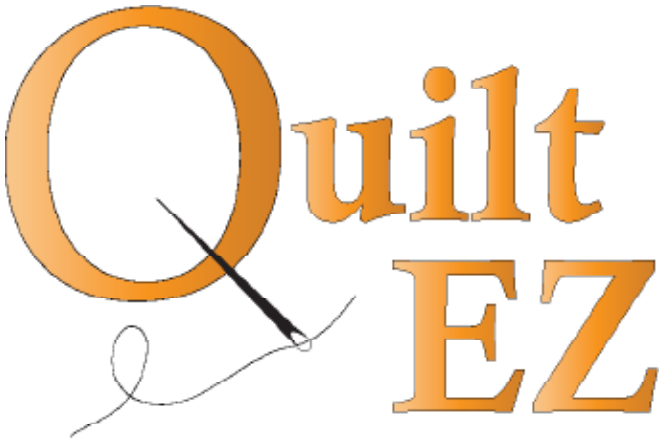
In order to use free motion with the butler connected the belts will need to be disengaged.

To disengage the x-belt, move the locking lever away from the edge of the motor box.

To disengage the y-belt, loosen the wing-nut on the carriage bracket.

You can now use free motion quilting.





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