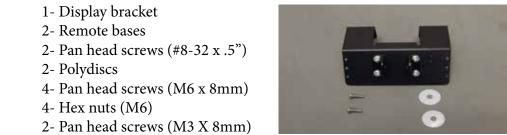


# How to Attach Butler Robotics to an IQuilt Frame

Bag #	Contents	Picture
<b>X1</b>	1-White Belt (15')	
<b>Y1</b>	1 - Black Belt (86")	
<b>Z1</b>	10 - 5 " Zip Ties 5 - 10 " Zip Ties 10 - Plastic Anchors 2 - Washers (M5) 2 - Screws (M5 x 12mm)	400
<b>Z</b> 3	1 - Motor Pulley Cover 2 - Nuts <i>(M5 K-Lock)</i>	





**X2** 

4 - Metal Clamps

2 - Eye Bolts *(M5)* 

4 - Pan head screws (M5 x 25 mm)

8 - Nuts (*M5 K-Lock*)



**Y6** 

1- Eyebolt (M5x 40mm)

2- Panhead screws (M5 x 12mm)

4- Lock nut (M5)

1- Thumb screw (#10-24 x .5")

1- Screw (M5 x 6mm

1- Universal Y bracket

1- Carrigae bracket

2- Flat washer (M5x 10mm)

**I4** 

1 - Idler Pulley Bracket

2 - T Nuts

1 - Shoulder Screw

1 - Pulley

1 - Nut (10-24 K-Lock)

1 - Plastic Washer

**Cables** 

Vary by machine







#### **Install Motor Box**

Attach the motor box directly to the pre-drilled holes on the left side at the front of the carriage with the provided M5 x 12mm screws.







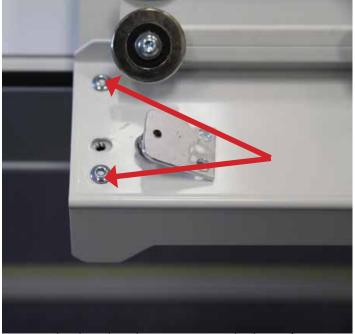
Apply two washers on each hole on the motor box between the box and the frame.

Before completely tightening the screws make sure that the motor box is square with the frame and not rubbing against the frame or carriage.



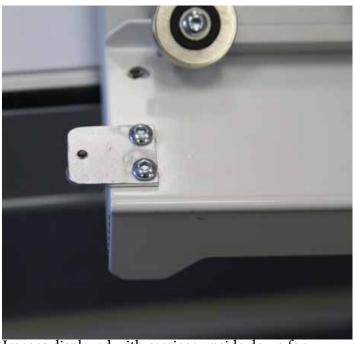
### **Install Rear Idler Pulley (Bag I4)**

Remove the two screws from bottom of the carriage at the rear on the same side as the motor box.



Images displayed with carriage upside down for display purposes.

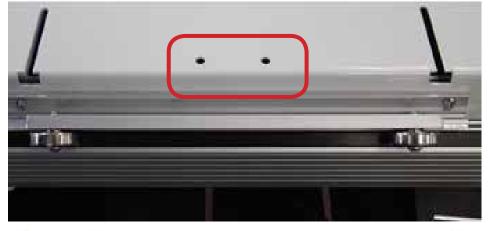
2 Use the removed screws to attach the rear idler pulley to the carriage by lining it up with the pre-drilled holes.



Images displayed with carriage upside down for display purposes.

#### **Installing the Black Belt (Bag Y6 and Bag Y1)**

Take and attach the carriage bracket to the pre drilled holes on left hand side of the carriage with the provided hardware.





Attach one end of the black belt to the eye bolt on the carriage bracket with the belt clamps.

Make sure the teeth face the carriage.

See Appendix A for belt clamp help.



Loop the belt around the pulley on the motor box and run it back to the rear idler pulley.



Loop the belt around the rear idler pulley and attach it to the other side of the carriage bracket with the belt clamps.



#### Installing the White X-Belt (Bag X1 and Bag X2)

Take a quad-hole bracket and a dual-hole bracket.

Mount the bracket so that it is inline with the motor box on the front of the frame.

Attach the brackets with the quad-hole bracket on the inside facing the motor box.

Use two  $10-24 \times 1/4$ " screws to clamp the brackets to the frame as pictured.







**Outside view** 

Attach the Eyebolt to the lowest hole on the inner bracket.

Leave one nut on the inside of the eyebolt and use the other nut to secure it to the bracket.

Repeat for the other side.



Attach the white belt between the two eyebolts.

Use the belt clamps to secure the belt to the eyebolts with the teeth facing up.

Leave some slack left in the line for the following step.

Note: Refer to Appendix A for help using the belt clamps.





Release the tension on the motor box, by unlocking the belt tension lever on the top of the motor box.

Loop the belt through the pulleys on the back of the motor box, by running over the first pulley, under the middle pulley and over the last pulley.

Re-engage the belt lock lever, and adjust the eyebolts as needed to remove excess slack in the belt.





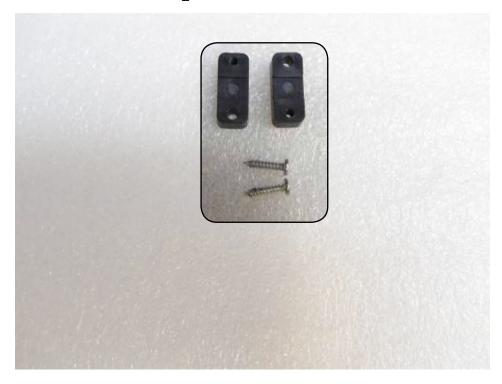
# **Installing Android Display and Cables**

Please refer to the installing Android guide for help installing the Android tablet.

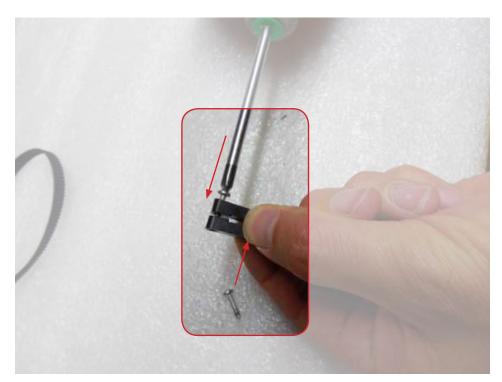
Please refer to the Attaching Cables to Robotics guide for information on running cables.

## **Appendix A - How to use Belt Clamps**

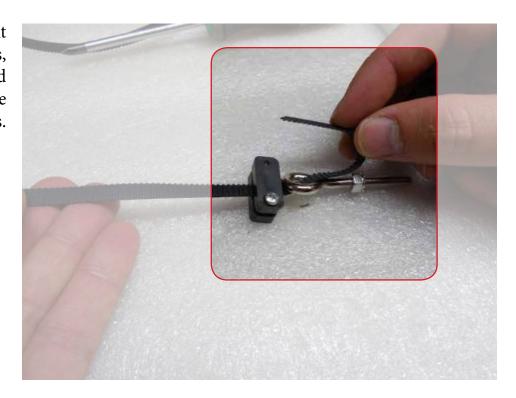
A belt clamp consists of two clamps and two screws.



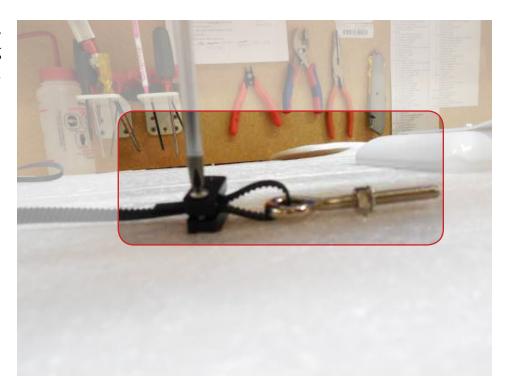
Using a Phillips screwdriver, insert each screw on opposite sides of the clamps and tighten halfway.



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



Align the belt teeth, then finish tightening the clamps.



#### **Appendix B- Additional help**

#### **Installing cables**

Please refer to the Connecting Robot to Quilt Machine instruction set for help installing cables.

#### 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

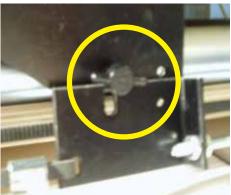
In order to use free motion with the butler connected the belts will need to be disengaged.

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.







# Still need help?

Visit quilt-ez.com to learn how to contact us and find additional help material.