



# **How to Attach Butler Robotics to an A-1 Symphony Frame**

## Bag #

## Contents

## Picture

### Cables

- 1- Power cable
- 1- Black network cable



### X1

- 1-White belt (12')
- 4 - Plastic belt clamps
- 4 - Screws (4-40 x 0.5)



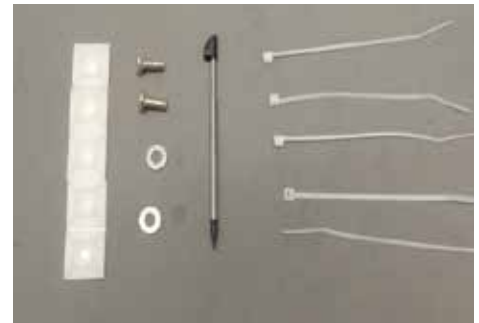
### Y1

- 1 - Black Belt (86")
- 4 - Plastic Belt Clamps
- 4 - Screws (4-40 x 0.5)



### Z1

- 5- Plastic Anchors
- 2- M5 x 12mm screws
- 2- M5 washers
- 1- Stylus
- 5-Zip ties



### Z3

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



## Bag #

## Contents

## Picture

**D1**

1- Display bracket  
2- M3 x 8mm screws  
2- Remote bases  
4- M6 x 8 screws  
4- M6 Nuts  
2- Poly discs  
2- 8-32 x 1/2" screws



**I13**

1- Motor pulley  
2- M5 x 12mm flat washers  
1- Poly disc  
1- Hex nut  
1- Shoulder screw  
1 10-24 x 3/8" screw



**Y18**

1- Carriage bracket  
1- Eyebolt  
2- M5 K-lock nuts  
2- 1/4-20 x 1/4 screws  
1- Y-bracket  
1- Thumb screw



**X9**

2- X-belt brackets  
2- Eyebolts  
4- M5 K-lock nuts



## Attaching Carriage bracket

- 1 Attach the carriage bracket to the bottom of the wheels of the machine.

Stand the machine on its back and remove the two screws on the left hand side of the machine.



- 2 Align the two holes on the bracket to the ones on the wheel.

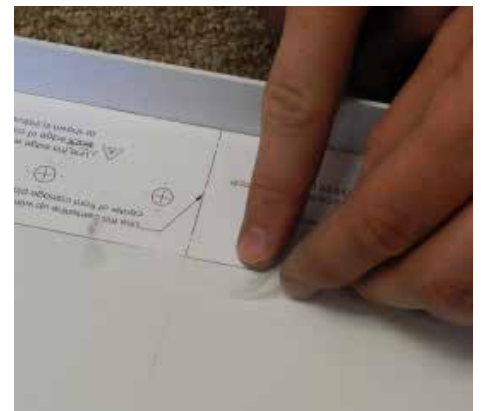
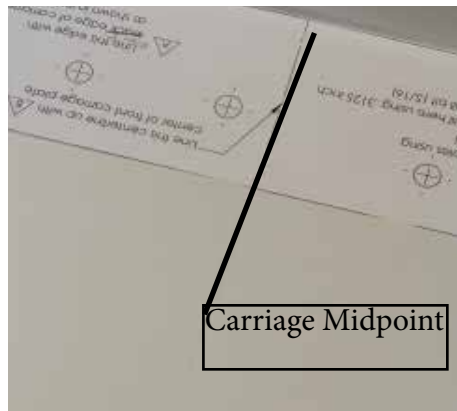
Mount the bracket using two 1/4 -20 x 3/4 screws.



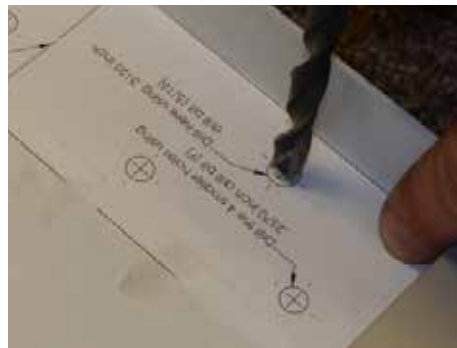
# Attaching Motor Box

- 1** Use a tape measure to get the width of the front of the carriage. Use a marker to show where the center of the carriage is.

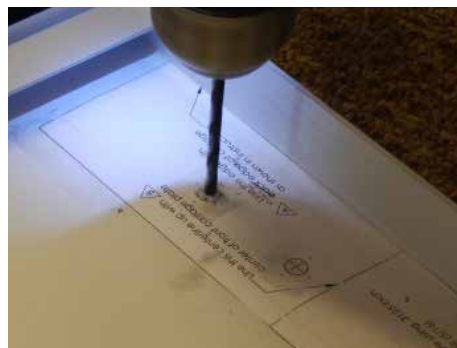
Align the center of the drill template with the carriage midpoint.



- 2** Use tape to secure the drill template so it doesn't move while drilling.



- 3** Drill the holes on the carriage using the bit sizes listed on the templates.



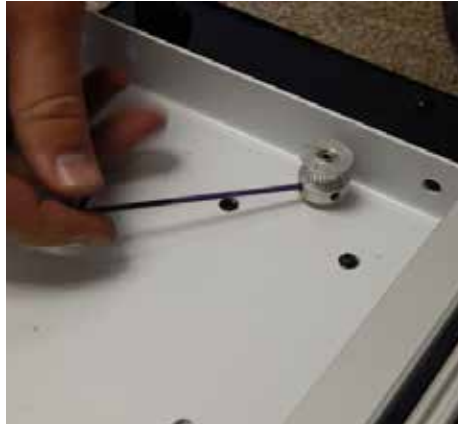
*Note: using a smaller drill bit first can make it easier to drill the size that the template calls for.*



## Attaching Motor Box

- 4** Use a hex key to loosen the screw on the pulley. Then remove the pulley from the top of the motor box.

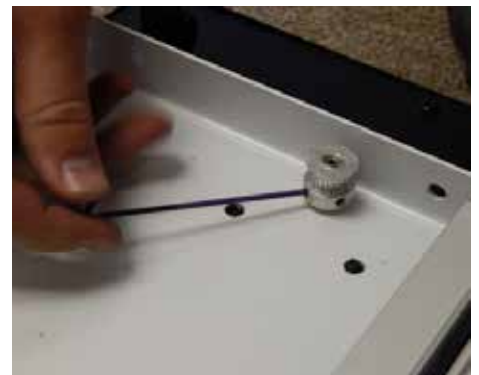
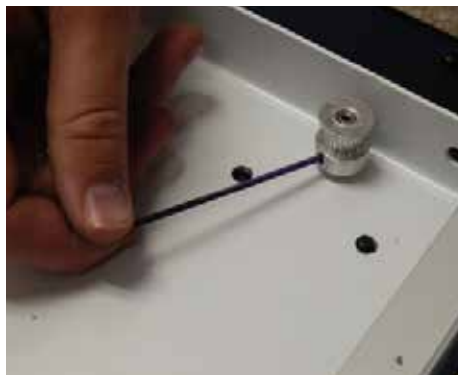
Attach the motor box to the carriage inserting the pulley shaft into the closest hole to the edge.



- 5** Reattach the motor box pulley to the shaft of the motor box.

Align the screw on the pulley with the flat side of the shaft.

Use the hex key to tighten the screws, and pulley in place.

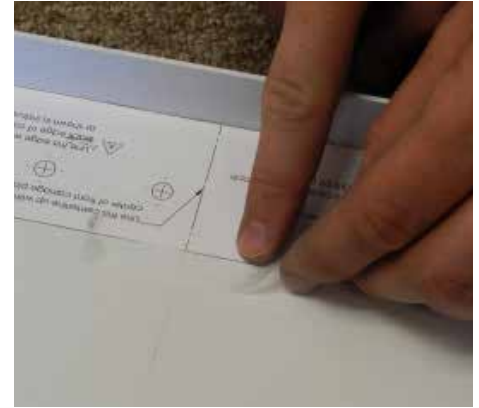
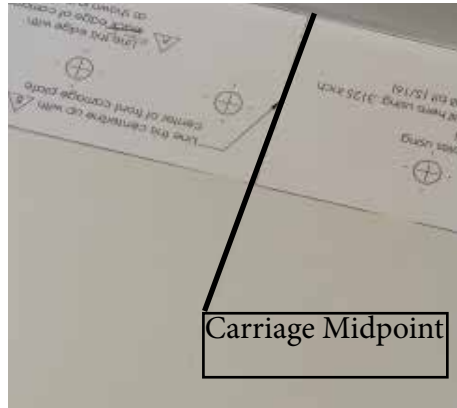


## Attaching Rear Idler Pulley

- 1** Use a tape measure to get the width of the back of the carriage. Use a marker to mark the carriage midpoint.

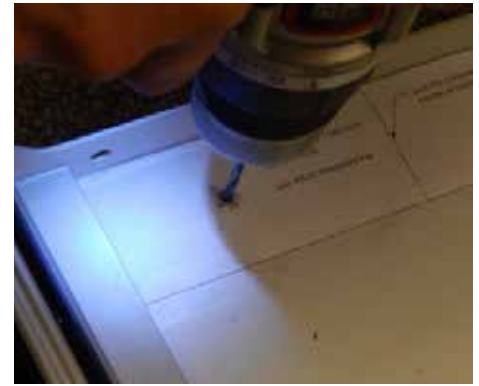
Align the center of the drill template with the carriage midpoint.

Use tape to secure the drill template so it doesn't move while drilling



- 2** Drill the holes on the carriage using the bit sizes listed on the templates.

*Note: using a smaller drill bit first can make it easier to drill the size that the template calls for.*



- 3** Once the hole has been drilled tap the hole using the tap size listed on the template.



## Attaching Rear Idler Pulley

- 4** Assemble the rear idler pulley by inserting the screw with the bearing through the pulley and poly disc.



- 5** Insert the assembled pulley into the drilled hole on the carriage, and use a hex key to fasten it into place.

Do not over tighten, the pulley needs to be secure and able to spin easily.





## Attaching Black belt

- 1** To install the black belt, start on the left hand side of the carriage bracket with the slot on it.

Loop the belt through the slit, with the teeth facing in, secure it with the belt clamps that are provided.

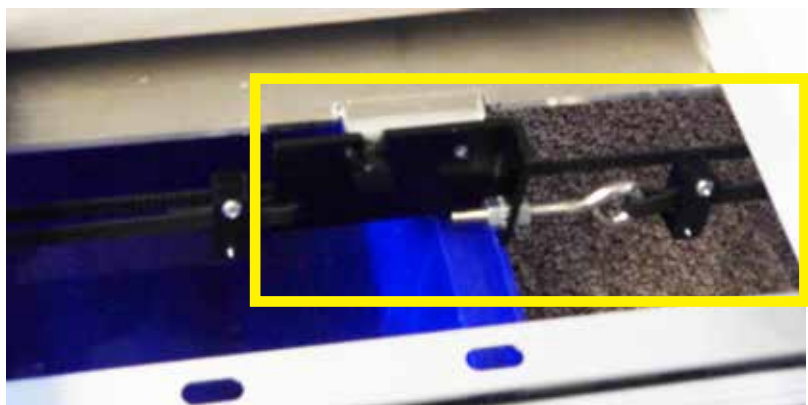
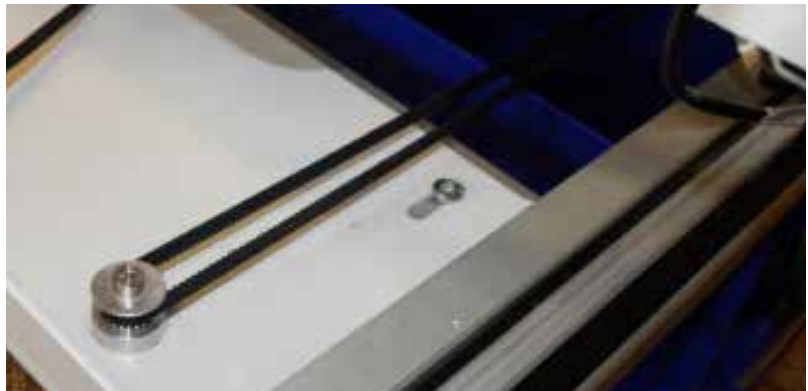
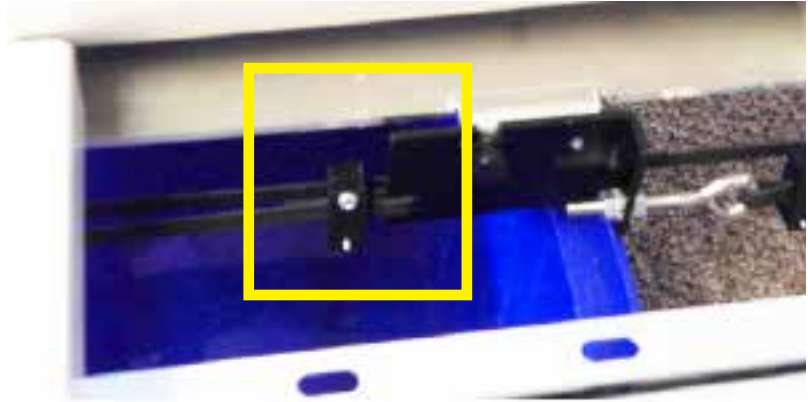
*For instructions on how to use the belt clamps see Appendix at the end of this manual.*

- 2** Run the belt around the rear idler pulley making sure the teeth face the grooves on the pulley.

Continue to run the belt behind the carriage bracket and around the motor box back toward the carriage bracket.

- 3** Attach the eyebolt to the carriage bracket with the eye facing vertically.

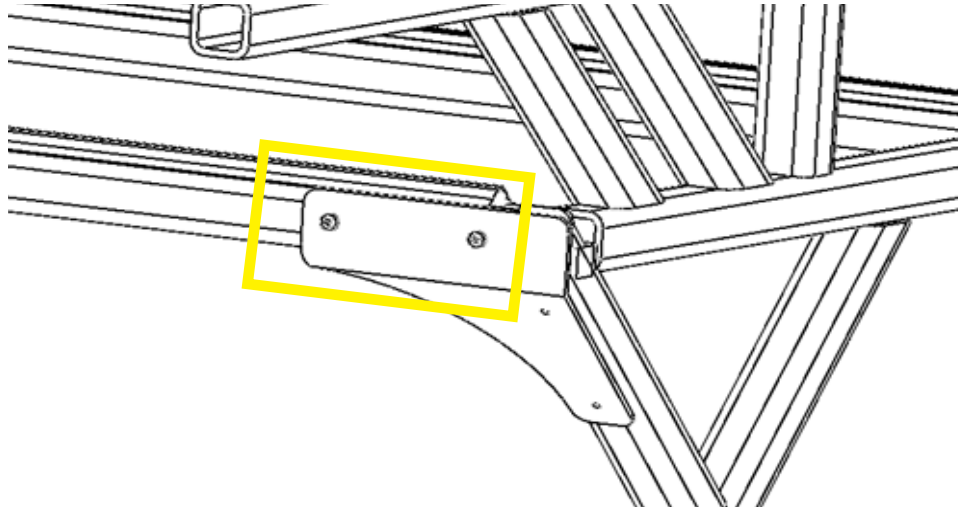
Attach the belt to the eyebolt using the belt clamps.



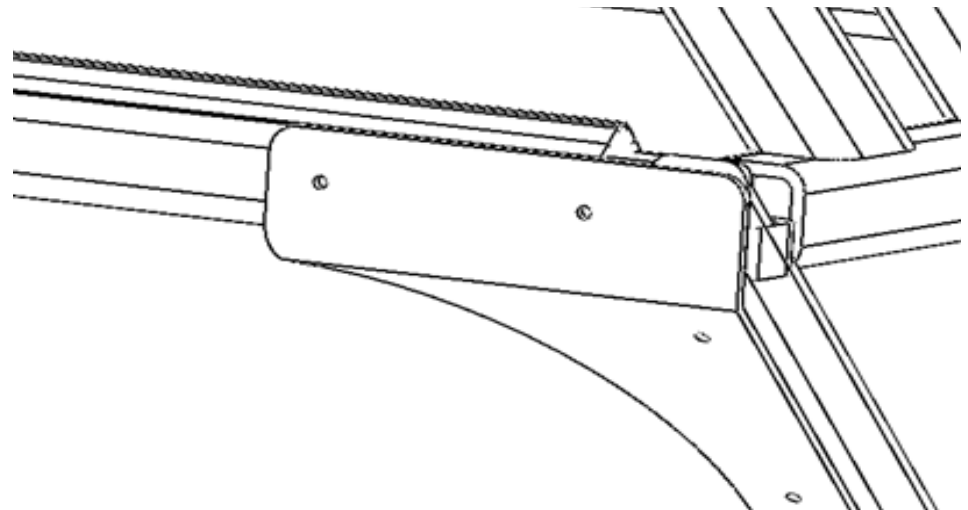
## Attaching White Belt

- 1** To mount the X axis belt you will need to remove two screws from the front of the frame.

Remove the two screws that are circled in the picture to the right.



- 2** Once the screws have been removed you will go ahead and align the bracket to the frame and match the holes.

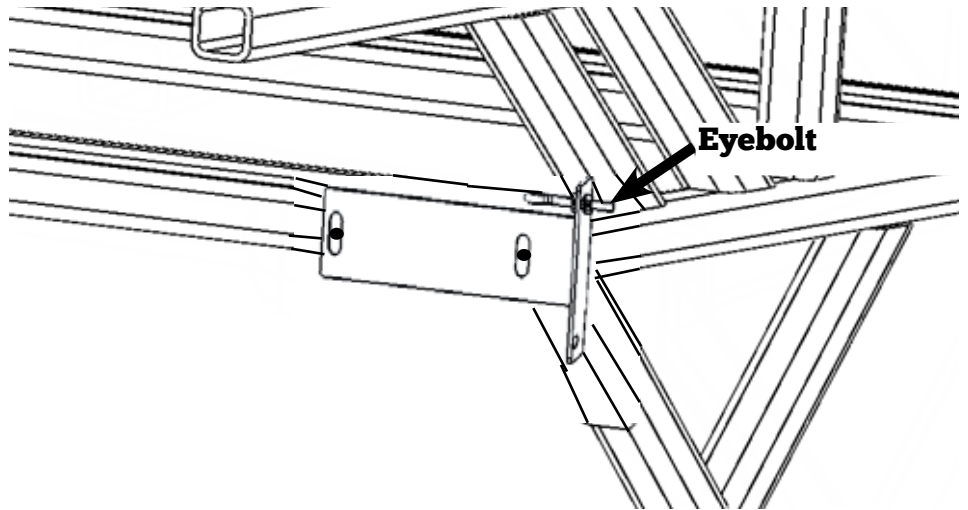


**3** Use the same screws that were previously removed to mount the bracket to the frame.

Do the same for the opposite side of the frame.

Attach the eyebolts with the eyes facing horizontally.

Use the belt clamps to secure the belts to the eyebolts with the teeth facing up. Leave some slack in the line for the following step.



**4** 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.

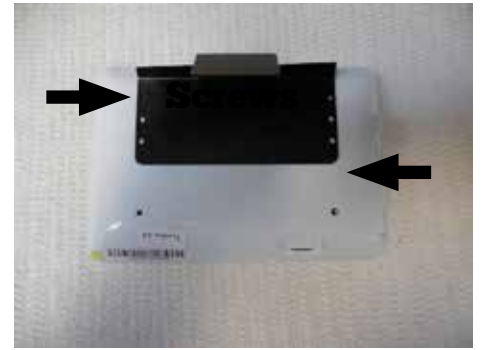


# Install Display

**1** Insert SD card into display.

Attach display to display bracket with provided screws.

Install display onto the machine using the provided screws.



**2** Loosen faceplate screws and slide display bracket tab between faceplate and machine head.

Tighten faceplate screws.

*Note: that machine pictured at right is not an A-1, but the method is the same.*



**3** Plug the display wire into the remote port.

Plug the remaining end into the display.



# Mounting 10" Display

- 1** You will mount the Remote Bases onto the Display bracket you were provided with.



- 2** Once properly attached you will proceed to remove the two top screws on the head of the machine.



- 3** Next you will slide the Display bracket in between the head and metal plate of the machine.



- 4** Once the display is sandwiched in between the machine head and the metal face plate you will go ahead and install the original screws you removed at the beginning.

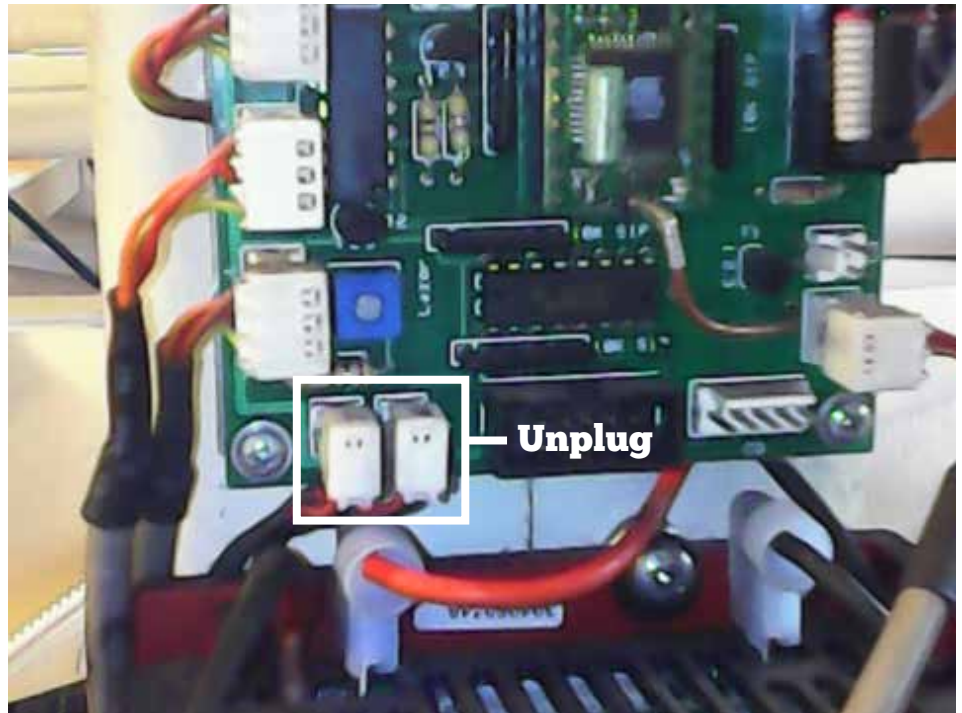


**For installing your 10" display refer to the "Installing/ Troubleshooting your Android Tablet manual."**

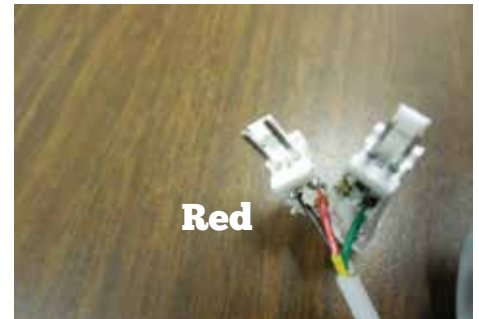
# Connect Handle Bars

## For Non-Perfect Stitch

- 1** Unplug the indicated wires from the PCB located at the rear of the machine.



- 2** Plug the red wire into the Start/Stop port and the green wire into the Needle Up port.  
(The two ports you just unplugged.)



- 3** Plug the remaining end of the handle bar wire into the handle bar port.

**For additional help installing cables, please refer to the "Connecting cables to Robotics" manual**

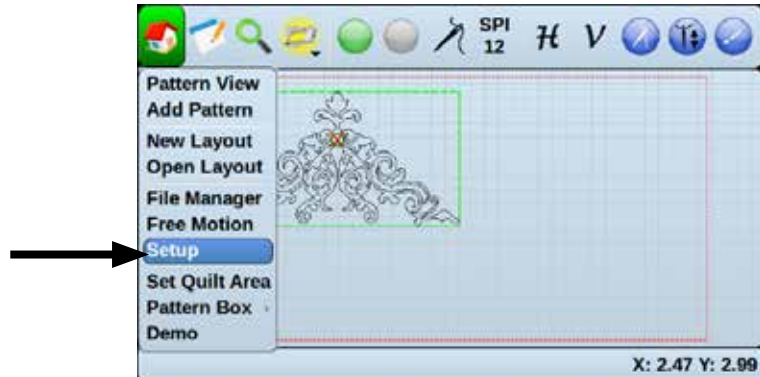


# Set Machine Type

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

## 7" Tablet:

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

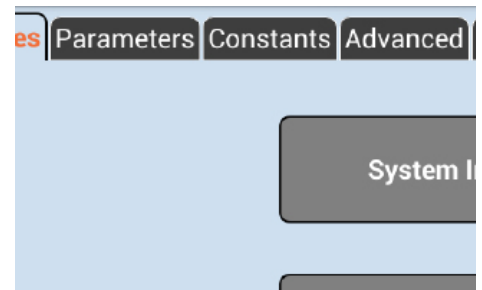
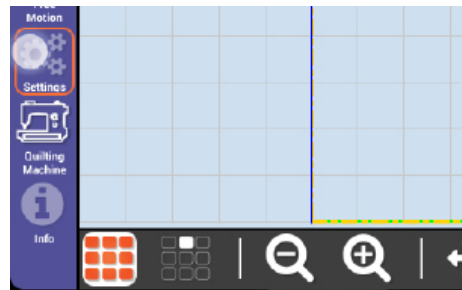


- 2 Go to the **Advanced** tab and set the machine type to A-1.

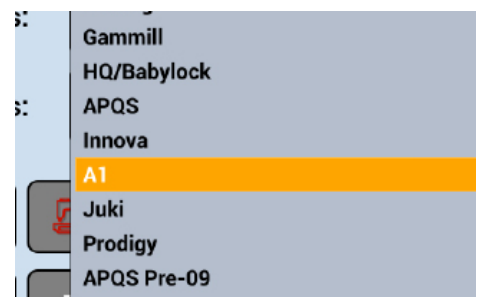
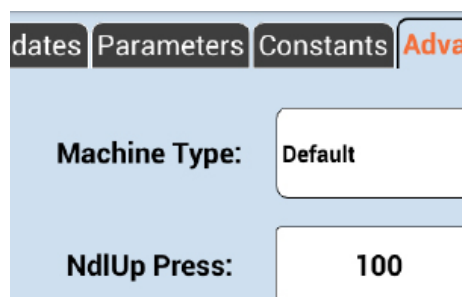


## 10" Android Tablet:

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



- 2 Select Machine Type and set the machine type to A-1.

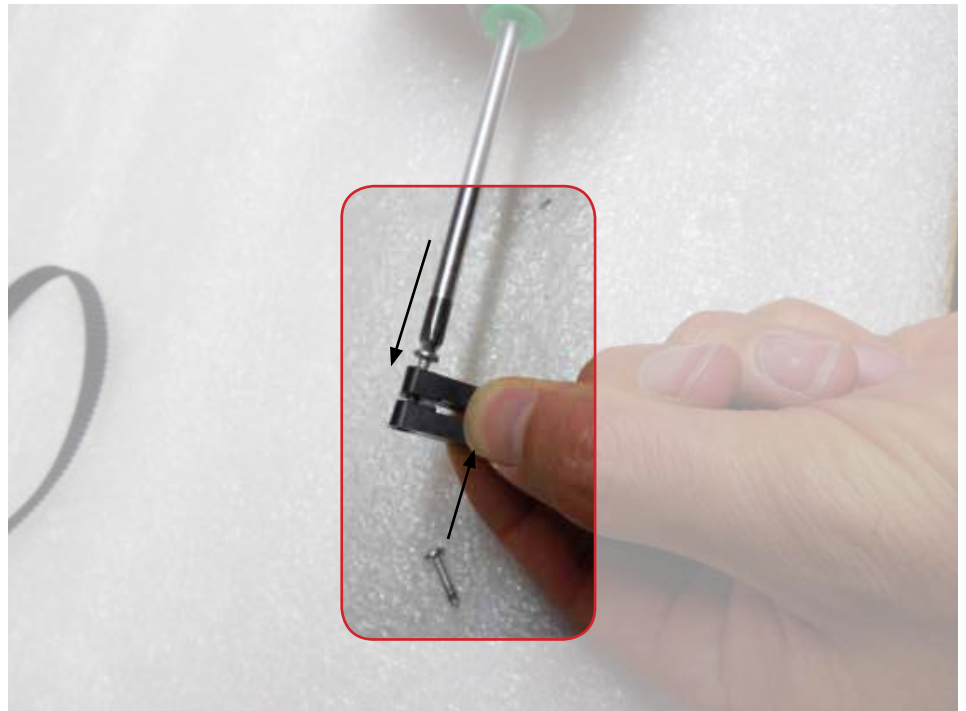


## Appendix A - How to use Belt Clamps

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**

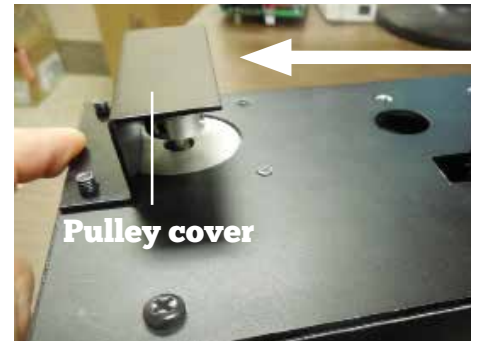
Align the belt teeth, then finish tightening the clamps.



# Motor Pulley Cover (Optional)

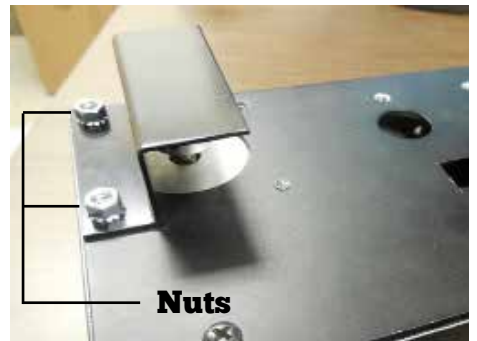
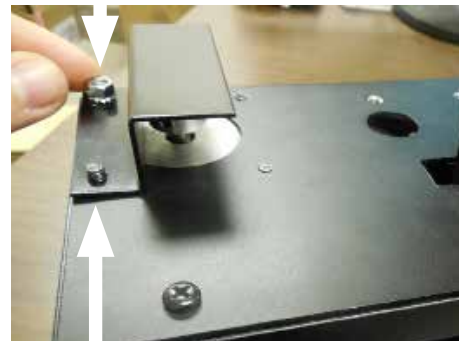
**1**

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



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

(Refer to **Bag #28**)



## 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 B- Additional help

## Installing cables

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

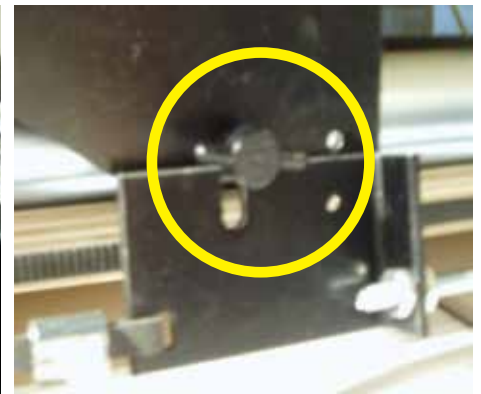
## Power on the robotics

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 motorbox.

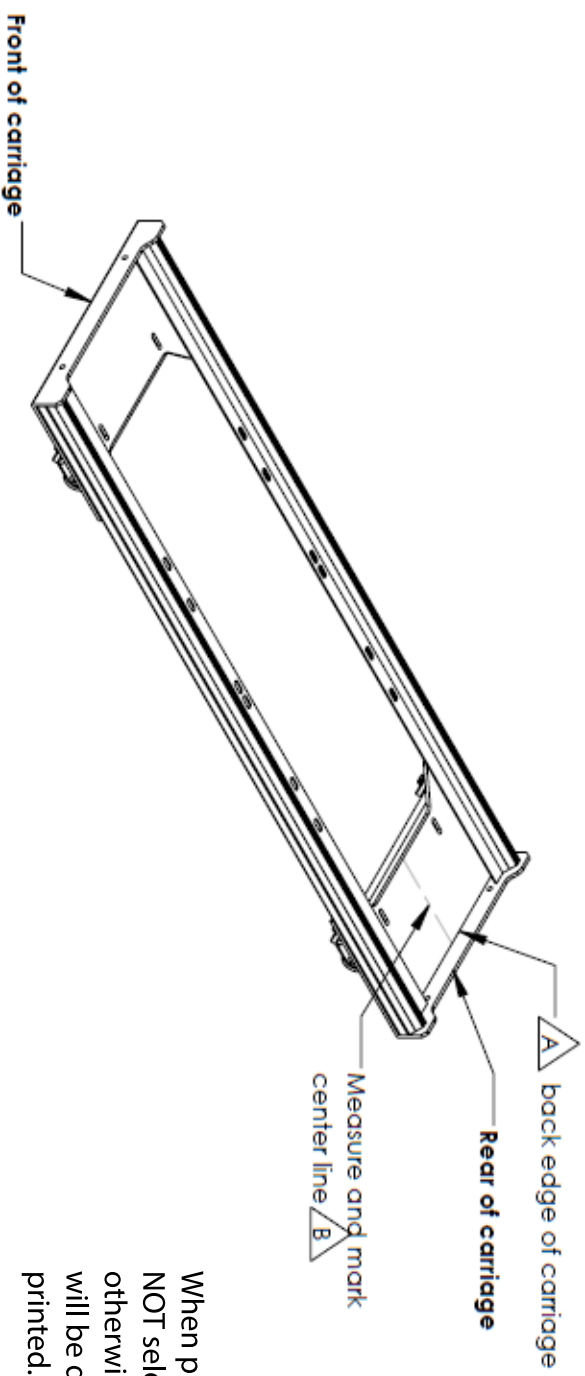


To disengage the y-belt, loosen the wingnut on the carriage bracket.

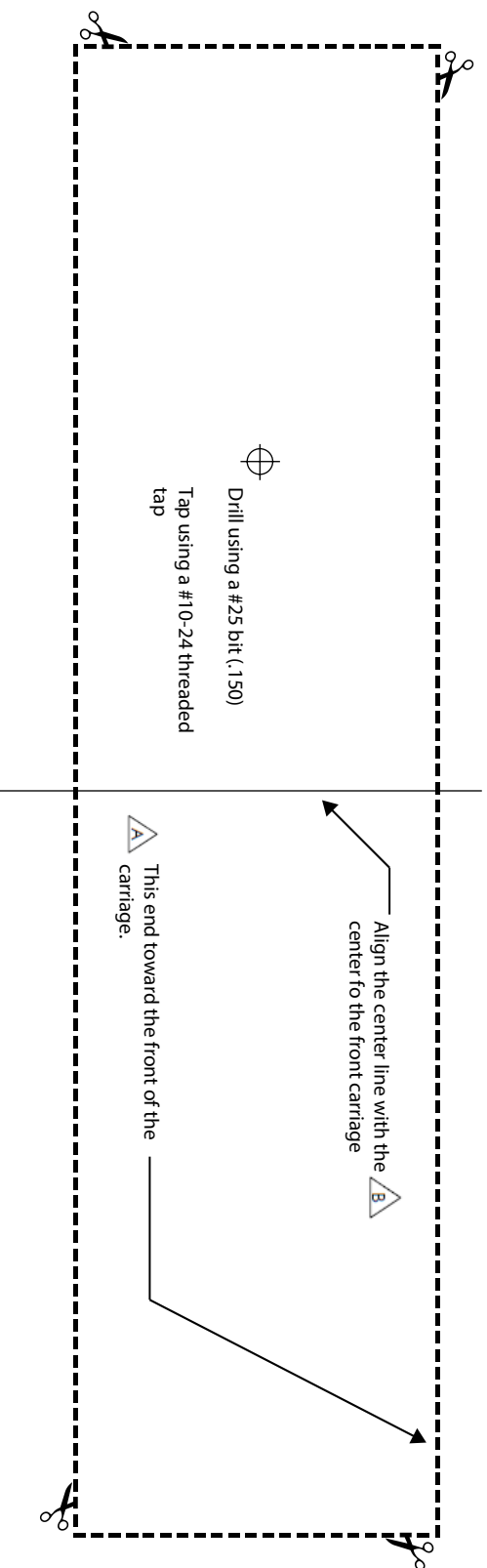
You can now use free motion quilting.



# REAR IDLER DRILL TEMPLATE

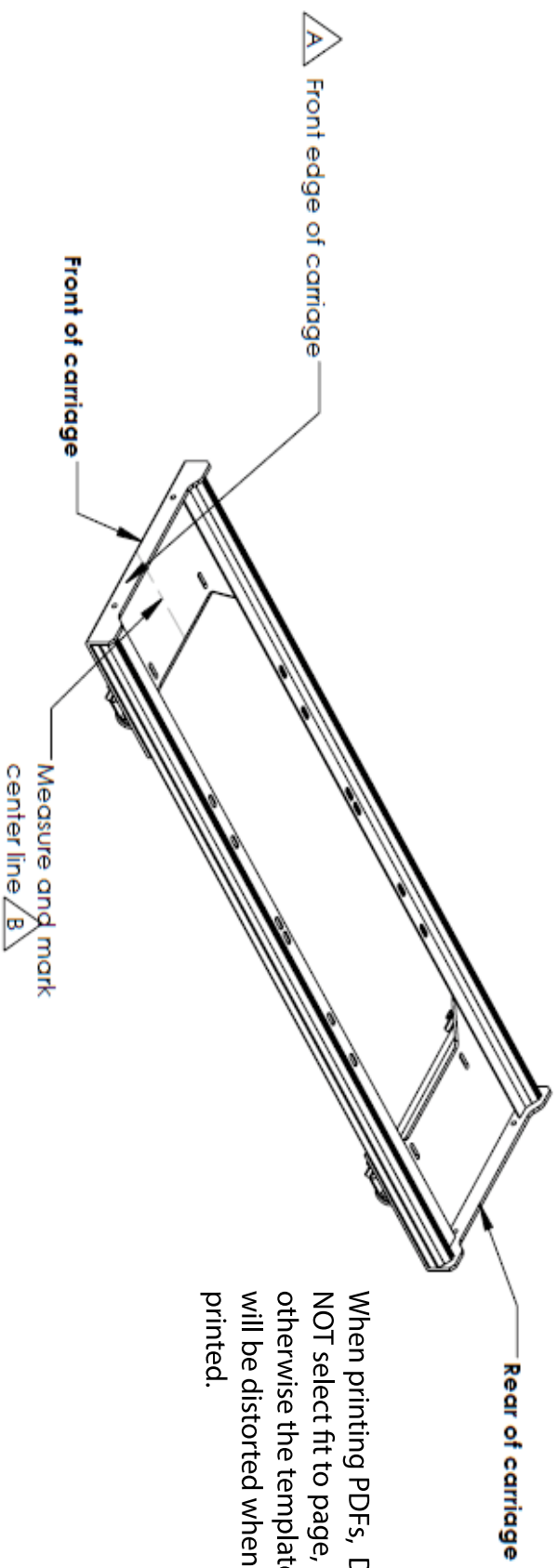


When printing PDFs, DO NOT select fit to page, otherwise the template will be distorted when printed.

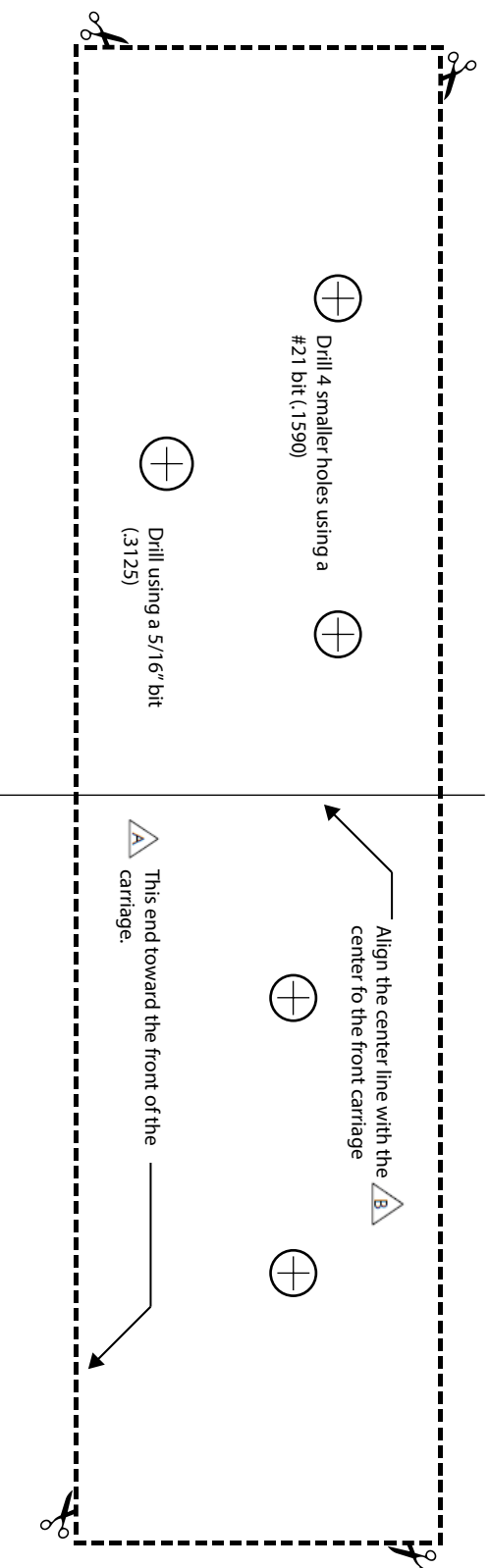




# MOTORBOX DRILL TEMPLATE



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## **Still need help?**

Visit [support.quiltez.com](https://support.quiltez.com) to learn how to contact us and find additional help material.