printrbot

Installing the Play Y Axis Upgrade (with heated bed)

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Step 1 — Installing the Play Y Axis Upgrade (with heated bed)



- See the <u>Bill of Materials</u> attached to this guide to make sure that you have all of the necessary components for the Y Axis Upgrade.
- (i) TIP: Before beginning your installation, raise the extruder to the maximum height in order to give yourself plenty of room to "operate" on your bot.
- Remove the existing print bed by loosening the plastite screws (x4).
- Remove the existing GT2 belt, 8mm smooth rods, and rod ends.

Step 2



- Remove the existing M4 22mm socket cap screw from the idler pulley stack on the base.
- Replace the M4 22mm socket cap screw with an M4 20mm button head screw.
- Re-install the idler pulley.
- If you are NOT installing the heated bed option, the button head screw will not be included with your kit. It is not needed if you are not installing the heat plate.

Step 3



- Insert the 268mm long 8mm smooth rod (x2) into the Y axis bearings. Add the injection molded bar ends. The bar end with the screw holes for the belt tensioner clip goes to the back side of the bot.
- Loop one end of the 16.25" GT2 belt into your existing belt tensioner clip. Align the teeth of the GT2 belt and secure with a zip tie. Attach the belt tensioner clip to the rear bar end with existing M3 screws..
- (i) TIP: Do not thread the M3 screws deep into the clip. You will want the threading to adjust belt tension.
- Route the GT2 belt around the GT2 pulley and idler pulley. Aligning the teeth of the belt with the grooves of the pulley.
- Loop the other end of the GT2 belt through the slots of the front bar end and secure with a zip tie. Pull the belt as tight as possible before placing the zip tie.
- Lastly, go back and tighten the M3 screws in the belt tensioner clip to get the belt as tight as possible.

Step 4



- Cut a piece of Kapton tape off of the 2x2" square (~half). Use this tape to attache the thermistor to the bottom side of the print bed.
- Use M3 6mm button head screws (x5) to attach the heat plate and radiant barrier to the bottom side of the print bed. Add another small piece of Kapton to secure the radient barrier and heat plate wire leads to the print bed.
- Attach the print bed to the bar ends with 1/2" plastite screws (x4).
- Note that the "CAUTION: HOT" sticker is oriented to the front and the heat plate wiring is directed to the right side of the bot to the rear.

Step 5 — Updating the bed size in Cura and the Printer



- Open Cura, click on Machine settings and change the bed depth to 203mm.
- Load a STL file, click on Print with USB, in the Gcode window, enter "M501" then "M211 Y203" then "M500" to save changes.

Step 6



- Remove your existing 6 PIN power harness dongle and replace it with the 6 PIN to 6 PIN power extension.
- Use the screw terminals to connect the heat plate wiring leads to "HOTBED" on the Printrboard.
- Plug the thermistor into "T-BED" on the Printrboard.
- *(i)* TIP: You may find it easier to access the Printrboard if you unscrew the M3 screws attaching it to the base of the bot.
- Lastly, apply the 4x8" piece of Kapton tape to the print bed.
- Great job. Happy printing!

YOU MUST USE AN ATX POWER SUPPLY if you will be printing with the heated bed.

Step 7 — NEXT STEPS

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<u>NEXT STEPS</u>

- Adjust your Machine Settings in Cura to reflect the new Y axis dimensions. Select Machine/Machine Settings/Maximum depth (mm).
- Enter "200" and click OK to save.
- Next open the Pronterface UI to adjust the build volume on your Printrbot Play. Enter the following gcode commands into the send line.
 - M211 Y200
 - M500
 - M501
- After sending "M501", your M211 line should read "M211 X100 Y200 Z130".

This document was last generated on 2016-03-09 02:08:08 PM.