

THE RECREATOR3D

MK6: FUN SIZE

DIY BUILD NOTES

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Revised for Public Release By: Nick Jones
Current Revision Held By: JRT

**Strip down your PET1 recyclable plastic bottles
and convert them into usable 3D Printer filament!**

RECREATOR3D.COM - RECYCLE3D.XYZ - JRT3D.COM

FACEBOOK: <https://www.facebook.com/groups/recreator3d>

<https://www.facebook.com/groups/recreator3dfrance>

DISCORD: <https://discord.gg/jwPQqRsv6T>



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5. Finished.....	

2. TERMS OF SERVICE

2.1. LIABILITY

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3. BILL OF MATERIALS

This section contains a list of the recommended parts and materials required for the assembly of the MK6 Fun Size.

3.1. PARTS & MATERIALS LIST

PART NAME / DESCRIPTION	QTY	PART NAME / DESCRIPTION	QTY
ELECTRONICS			
Ender 3 LCD	1	Power Switch Rocker with wires	1
Ender 3 LCD Wire	1	Nema 17 Stepper Motor 42x40mm	1
Ender 3 - 4.2.2 or 4.2.7 Board	1	Stepper Motor Cable	1
16 AWG Stranded Copper Wire, Black/Red	1	CR-10 - 12V 40W Heater	1
12V 60W 5A Power Supply	1	CR-10 - 100K Thermistor with Connector	1
Power Cord	1		
MATERIALS			
Print Head Cover	1	Ender 3 Style Heatsink	1
Extruder Back Support Plate	1	Ender 3 Style Heat Block	1
2020 Aluminum Extrusion 150mm	2	M6 E3D Nozzle suggested or standard M6	2
POM Wheels	2		
HARDWARE			
M3 Nuts	10	M3x30mm Screws	1
M3x6mm Screws	11	M4 T-Nuts	22
M3x8mm Screws	18	M4x8mm Screws	20
M3x12mm Screws	4	M4x12mm Screws	2
M3x14mm Screws	2	M5 Nuts	5
M3x16mm Screws	2	M5x20mm Screws	3
M3x20mm Screws	4	M5x25mm Screws	1
		M5x40mm Screws	1
TOOLS			
1/16 th or 1.6mm Drill Bit	1	3D Printer	1
M3 Allen Key/Hex Tool	1	Bottle Cutter*	1
M4 Allen Key/Hex Tool	1	Digital Multimeter	1
M5 Allen Key/Hex Tool	1	6mm Nut driver	1

* Not required for the build but is required in order to cut/strip PET1 bottles to feed into **The Recreator 3D Fun Size**.

3.1.1. 3D Printed parts

PRINTED PARTS				
PART NAME	MATERIAL	INFILL	WALLS	QTY
Back Plate Mount.stl	PETG/ABS/ASA/PET1	50% GYROID	5	1
Spool Core.stl	PETG/ABS/ASA/PET1	20% GYROID	5	1
Feet.stl	TPU	20% GYROID	3	4
Remaining Parts	PLA/PLA+	15% GYROID	3	
2020 Profiles*	PETG/ABS/ASA/PET1	50% GYROID	5	2

* This is an optional file should you decide to print it instead of purchasing its metal variant.

Recreator3D MK6 Fun Size Printed Parts List

<https://docs.google.com/spreadsheets/d/12uzkp9KPtawX1nVUbP3yC5F4MtnBIG6oYiMLIERGf8/edit?usp=sharing>

Please visit the following link to go to our main Recreator3D.com website where we have the following items linked for purchase. The links are Amazon Affiliates and will help support the project.

<http://recreator3d.com/mk6store>

3.2. PARTS & MATERIALS LINKS

This section contains pictures, links, and QR codes to items listed from the items listed in the bill of materials. Using these links directly contributes to future R&D for Recreator3D.com's future creations.

3.2.1. Electronics



Redrex CR10 Hotend 12V 40W



Nema 17 Stepper Motor

42x40mm

Creality 3D Ender 3



V4.2.2 Silent Mainboard
(V4.2.2 Or V4.2.7 for silent
steppers, below will not be
silent)



Ender 3 LCD Screen



15A 250V 3D Printer Power

Rocker Switch



12V 5A 60W Power Supply



16 Gauge Stranded

Wire



Power Cord

3.2.2. Materials



2020 Aluminum Extrusion
150mm/5.9"



Print Head Cover (**purchase is
OPTIONAL,
But SUGGESTED for safety)**



Extruder Back Support Plate

3.2.3. Hardware

A varying assortment of screws and nuts are needed for the build. The screw kits on the following page are suggested to complete **The Recreator 3D Fun Size Build**. These kits contain everything needed and some extras.



VIGRUE 610PCS Alloy
Steel M3 Button Hex
Head Cap Screws M3 x
Bolts Nuts Washer Kit



Hilitchi 460-Pcs

M3 M4 M5 Button Head
Hex Socket Head Cap Bolts
Screws Nuts Kit



Cicidrai M5 x 20mm 25mm

30mm 35mm 40mm Button

Head Socket Cap Screws
Bolts, Kit



50 PCS

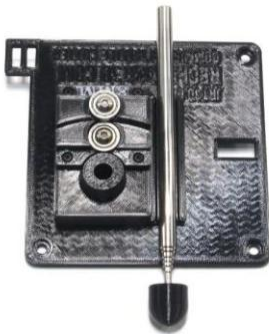
European Standard 20
Series T-Nuts, M4 T-Slot
Nut Plated Carbon Steel
for Aluminum Profile

3.2.4. Tools



1/16 In Drill Bit

Community Bottle Cutter



Printable.com project link:

<https://www.printables.com/model/154015-the-recreator-3d-community-bottle-cutter-Recycle-p>

[HOW TO MAKE : COMMUNITY BOTTLE CUTTER](https://youtu.be/2IzVs7Duawc)
<https://youtu.be/2IzVs7Duawc>

3.2.5. Filament



SUNLU PETG Filament



JAYO PLA+ 3D Filament

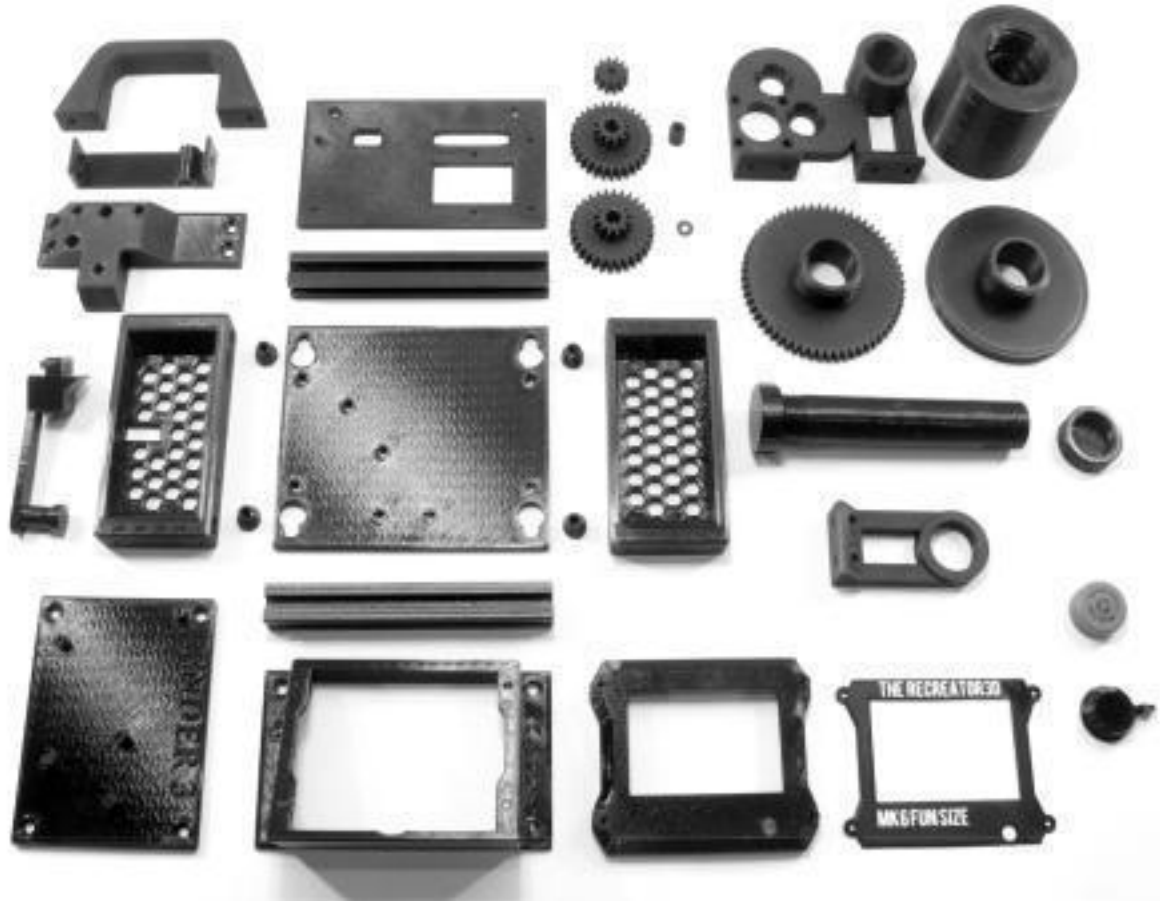


JAYO TPU 3D Filament

4. ASSEMBLY INSTRUCTIONS

4.1. STEP 1 – PRINT THE PARTS

Start by printing all parts from The Recreator 3D Fun Size Printed Parts List from section 3.1.1. This should take approximately 3 Days (72 Hours) to print and consume approximately 0.82Kg of material.



4.2. STEP 2 – ASSEMBLING TPU FEET

TOOLS

M3 Allen Key/Hex Tool



HARDWARE

4X - M3x12mm screws

4X - M3 nuts



PRINTED PARTS

PART 01: Base - Feet_X4

PART 02: Base Right

PART 03: Base Left



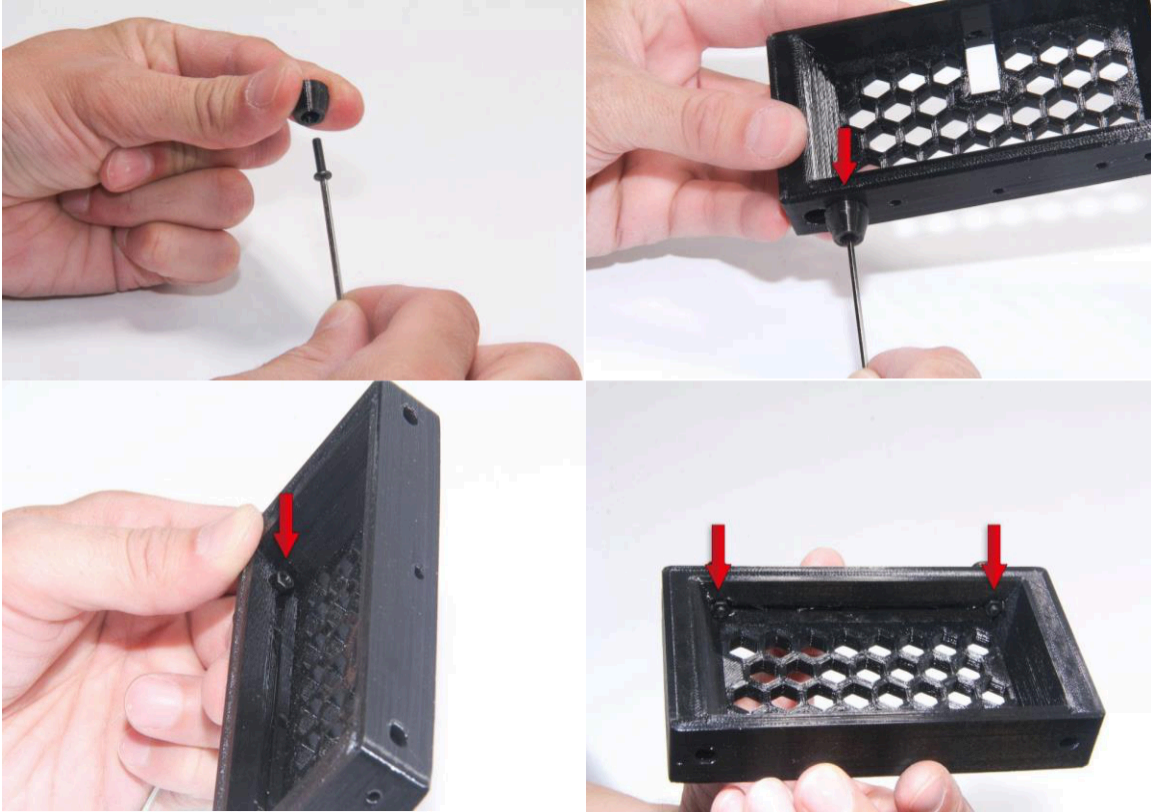
INSTRUCTIONS

Start by attaching the **Base - Feet_X4**.

*(TPU Feet to the **Base Right** and **Base Left** printed parts.)*



Use the **4X - M3x12mm screws**; placing them through the bottom of TPU feet following into the bottom of the Printed Bases and securing in place with the **4X - M3 nuts** on the opposite sides of each printed base.



TOOLS

M3 Allen Key/Hex Tool



HARDWARE

12X - M3x8mm screws



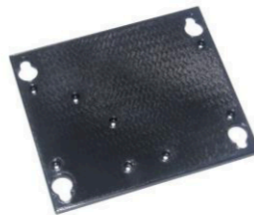
12X - M3x8mm screws

PRINTED PARTS

PART 04: Base - Back



PART 05: Base - Bottom



PART 06: Base - Front LCD



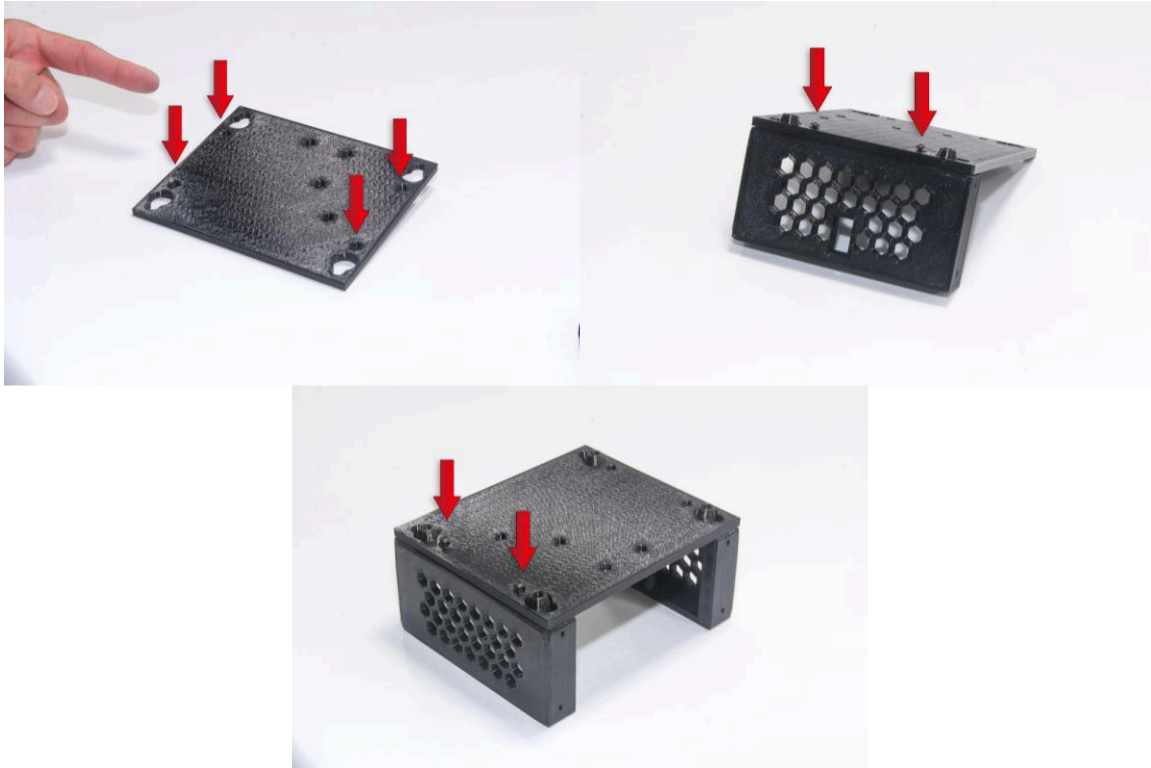
INSTRUCTIONS

Next assemble the **Base Right** and **Base Left** printed parts to the **Base - Bottom** printed part using **4X - M3x8mm screws**, two on each side.

Be mindful which direction the sides are connected to the base.

The left base side should have the spool mount hole and the **PSU** mount holes on the base should be positioned towards the front.





Attach the **Base - Back** printed part to the newly formed base using **4 - M3x8mm screws**.



Then attaching the **Base - Front LCD** printed part using the last **4 - M3x8mm screws**.



4.4. STEP 4 - ASSEMBLING THE LCD CONTROL BOARD FACE

TOOLS

M3 Allen Key/Hex Tool



HARDWARE

4X - M3x20mm screws

4X - M3 nuts

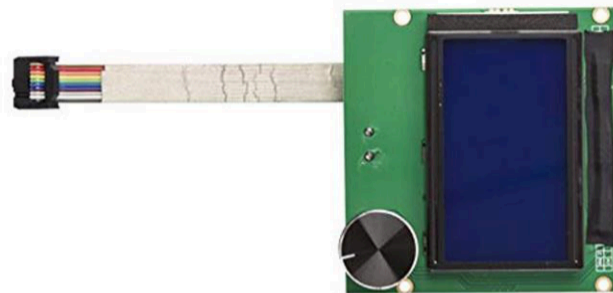
LCD Mounting screws.

4X - M3x8mm screws



ELECTRONICS

Ender 3 LCD Board



PRINTED PARTS

PART 07: Base - LCD Mount

PART 08: Base - LCD Sign



INSTRUCTIONS

Attach the Ender 3 LCD Screen to the inside of the **Base - LCD Mount** printed part using the 4X - M3x8mm screws.



Attach the **Base - LCD Sign** printed part to the front of the **Base - LCD Mount** printed part.

Using the 4X - M3x20mm screws and the 4X - M3 nuts to secure the two parts to the **Base - Front LCD** printed part with the nuts on the inside of the base.



4.5. STEP 5 - MOUNTING POWER SUPPLY AND POWER ROCKER SWITCH

TOOLS

M3 Allen Key/Hex Tool



HARDWARE

2X - M3x8mm screws



2X - M3x8mm screws

2X - M3 Nuts



2X M3 Nuts

4X - M3x6mm screws



4X - M3x6mm screws

ELECTRONICS

Power Rocker Switch

PSU



PSU



Power Rocker Switch

PRINTED PARTS

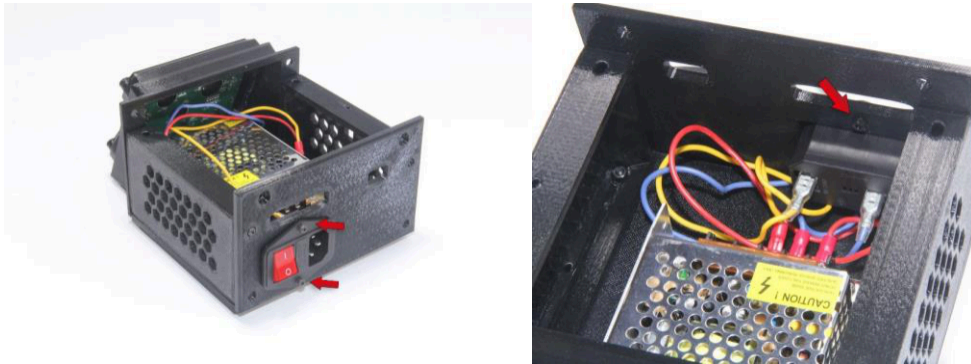
N/A

INSTRUCTIONS

Attach the **PSU** inside the base using the **4X - M3x6mm screws**.



Attach the **PSU Rocker Switch** using the **2X - M3x8mm screws** and **2X M3 Nuts**.



Make sure the switch is facing towards its left side when looking at it. This will allow for easy access from the front on its right side.

Connect the Power Rocker to the PSU to connections 1,2, and 3 as follows.

1. **RED Wire = L+** (Positive/Line)
2. **BLUE Wire= N-** (Negative/Neutral)
3. **YELLOW Wire = $\perp$** (Ground)



4.6. STEP 6 - MOUNTING THE CONTROL BOARD

TOOLS

M3 Allen Key/Hex Tool

M4 Allen Key/Hex Tool



HARDWARE

5X - M3x6mm screws

4X - M4x8mm screws

4X - M4 T-nuts

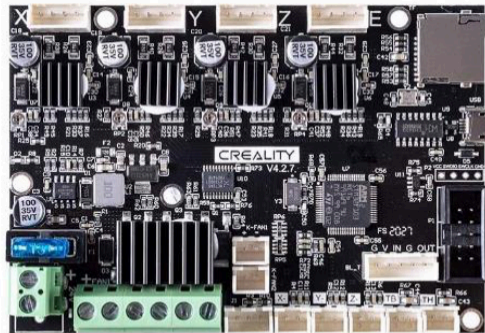
2X - 2020 150mm

Aluminum Extrusion



ELECTRONICS

Creality 4.2.2 Silent Board



Creality 4.2.2 Silent Board

PRINTED PARTS

PART 09: Board Mount - Ender 3

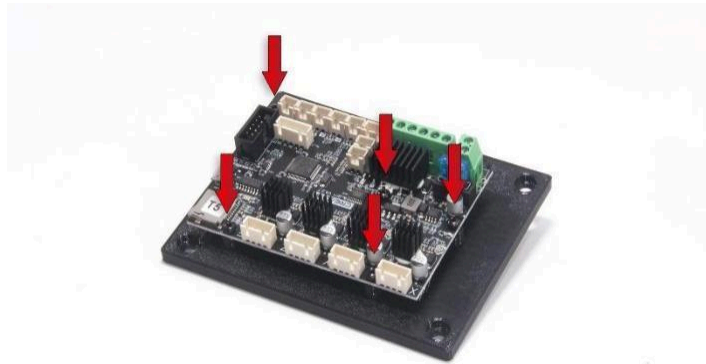
PART 10: Top - 2020 Profile_X2

Optional: if you did not purchase the aluminum variant

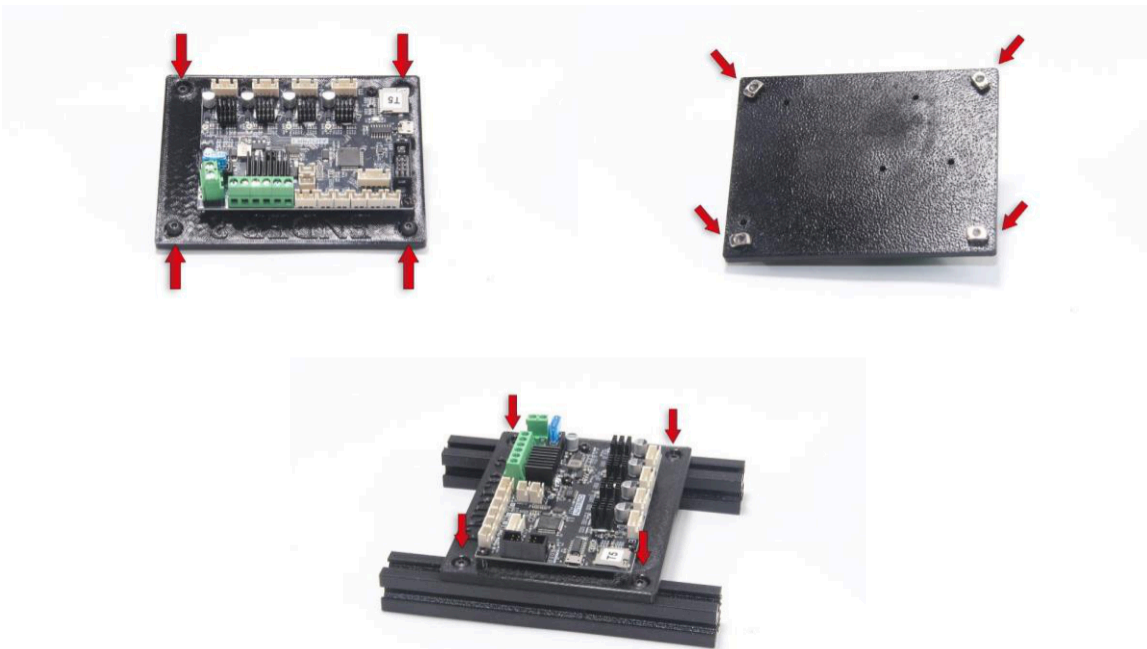


INSTRUCTIONS

Attach the **Creality 4.2.2 Silent Board** to the **Ender 3 - Board Mount** printed part using the **5X - M3x6mm** screws.



Attach the **Ender 3 - Board Mount** to the **2 - Top - 2020 Profiles** with the **4X - M4x8mm** screws and **4X - M4 t-nuts**.



Place loose without attaching onto the base while you build the rest of the unit.



4.7. STEP 7 - ATTACH THE MINI SPOOLER MOUNT

TOOLS

M3 Allen Key/Hex Tool



HARDWARE

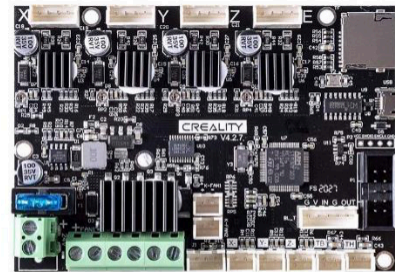
1X - M3x30mm screw



1X - M3x30mm screw

ELECTRONICS

Creality 4.2.2 Silent Board



Creality 4.2.2 Silent Board

PRINTED PARTS

PART 11: Base - Mini Spool Holder



INSTRUCTIONS

Attach the **Mini Spool Holder** using the **1X M3x30mm screw** onto the left side of the base in the slotted hole.

(Some slight sanding may be needed to fit).

You may also leave the screw unattached, if you desire to use The **Community Bottle Cutter Mount** for easy switching later while operating the unit.



4.8. STEP 8 - ASSEMBLING EXTRUDER BACK SUPPORT PLATE

TOOLS

M4 Allen Key/Hex Tool

M5 Allen Key/Hex Tool



HARDWARE

3X - M5x22mm screws

3X - M5 nuts

4X - M4x8mm screws

4X - M4 t-nuts

Extruder Back Support Plate



Extruder Back Support Plate



3X - M5 nuts

3X - M5x22mm screws



4X - M4 Tnuts



4X - M4x8mm screws

PRINTED PARTS

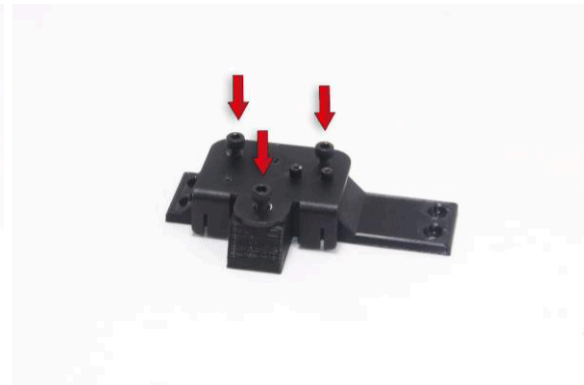
PART 12: Top - Back Plate Mount



NOTE: As previously stated in section 3.1.1 mount should be printed in a material with a higher glass transition temperature than PLA or PLA+ such as ABS, ASA, PETG or PET1.

INSTRUCTIONS

Attach the **Extruder Back Support Plate** to the **Top - Back Plate Mount** printed part using the **3X - M5x22mm** and **3X - M5 nuts**.



Attach the **Top - Back Plate Mount** printed part to the **2 - 2020 profiles** using the **4X - M4x8mm** and **4X - M4 t-nuts**.



4.9. STEP 9 - ASSEMBLING THE SPOOLER GEARS AND BACK MOUNT

TOOLS

M4 Allen Key/Hex Tool

M5 Allen Key/Hex Tool



HARDWARE

1X - M5x40mm Screw

1X - M5x25mm Screw

2X - M5 nuts

2X - POM wheels

4X - M4x8mm screws

4X - M4 t-nuts

4X - M3x8mm screws



ELECTRONICS

Nema 17 Stepper Motor
42x40mm



Nema 17 Stepper Motor 42x40mm

PRINTED PARTS

PART 13: Spooler – Back

PART 14: Dual Gear 1

PART 15: Dual Gear 1 Offset

PART 16: Dual Gear 2

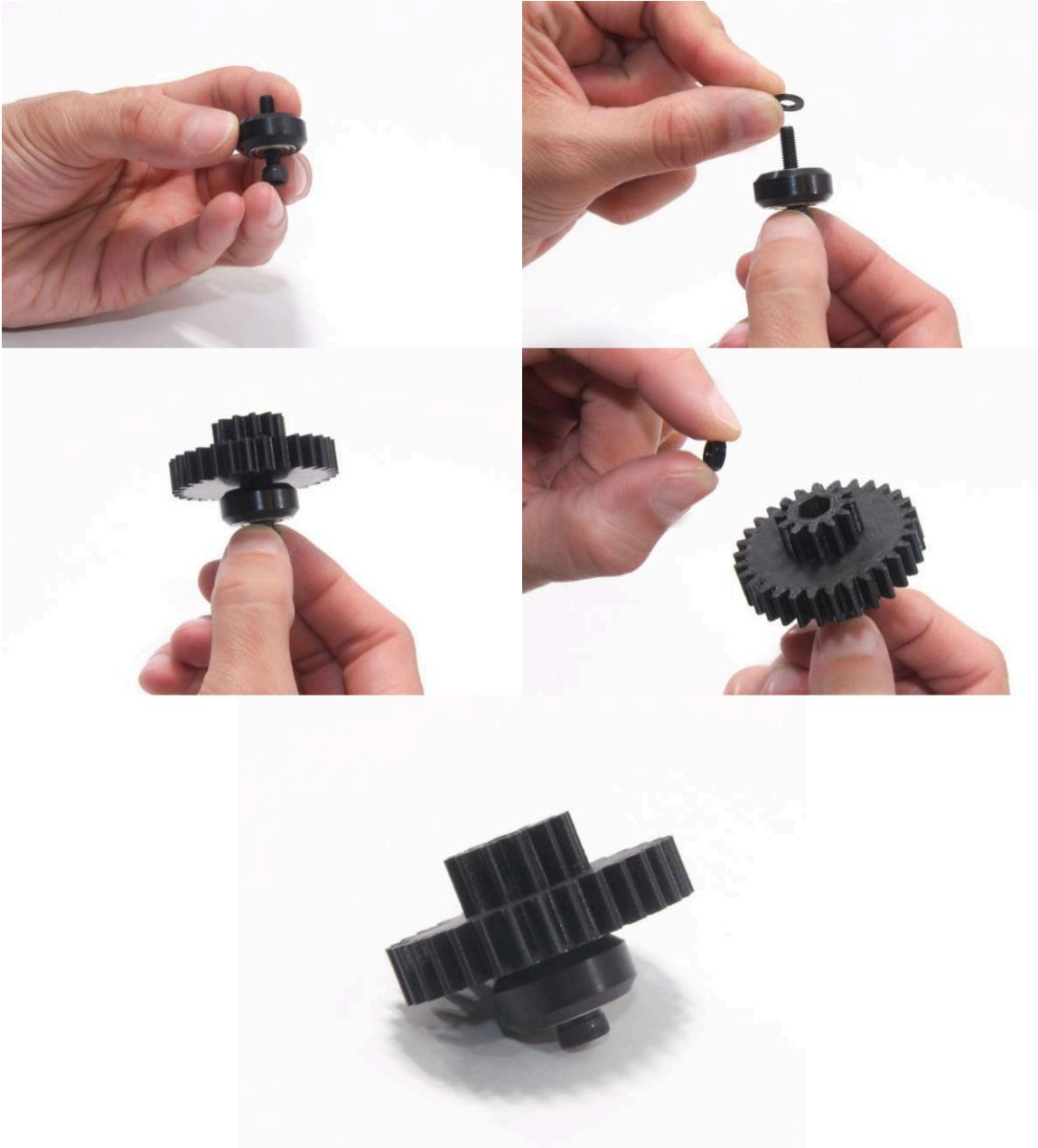
PART 17: Dual Gear 2 Offset

PART 18: Spooler - Motor Gear



INSTRUCTIONS

Attach the **Dual Gear 1** and **Dual Gear 1 Offset** printed parts; with **1X - POM Wheel**, using the **1X - M5x25mm** to the **1X - M5 nut**.



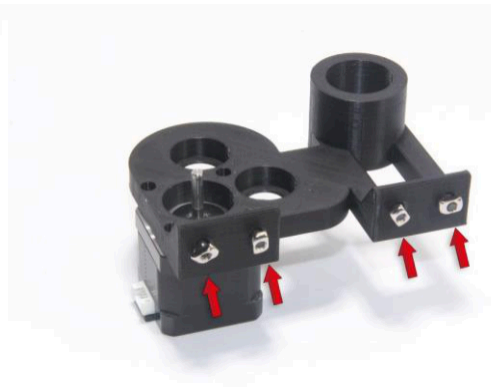
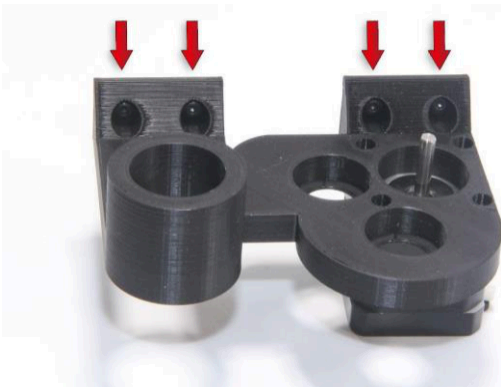
Attach the **Dual Gear 2** and **Dual Gear 2 Offset** printed parts; with **1X - POM Wheel**, using the **1X - M5x40mm** to the **1X - M5 nut**.



Attach the **Nema 17 Stepper Motor 42x40mm** with the **4X - M3x8mm** screws and attach the **Spooler - Motor Gear** printed part to the motor shaft.



Attach the **Spooler - Back** printed part onto the back **2020 profile** using the **4X - M4x8mm** screws and **4X - M4 t-nuts**.



Place the **Dual Gear 1** and **Dual Gear 2** into the slotted holes with the **Gear 1** to the upper slot and the **Gear 2** for the lower slot. Align the gear on the motor shaft to align properly.



- Due to variations in branded POM wheels, filament types, and printer tolerances, some offset may occur with your printed parts.
 - For a loose fit, a small strip of masking tape can help achieve a better grip.
 - If the fit is too tight, we recommend lightly sanding the POM wheels or using a small rubber mallet to ease them into place.



ALMOST THERE!

4.10. STEP – 10 ASSEMBLING AND ATTACHING THE MAIN SPOOLER

TOOLS

M4 Hex



HARDWARE

2X - M4x8mm screws

2X - M4 t-nuts



2X - M4x8mm screws



2X - M4 Tnuts

ELECTRONICS

N/A

PRINTED PARTS

PART 19: Spooler – Core
PART 22: Spooler - Rod

PART 20: Spooler - Front Core Cover
PART 23: Spooler - Rod Nut

PART 21: Spooler - Main Gear
PART 24: Spooler - Front



INSTRUCTIONS

Attach the **Spooler - Front** to the front **2020 profile** using the **2X - M4x8mm screws** and **2X - M4 t-nuts**. Use the **Spooler - Rod** as a guide to keep this straight while positioning.



Combine the **Spooler - Main Gear** printed part and the **Spooler - Front Core Cover** printed part to the **Spooler - Core** printed part to make the Main Spooler.



Align the **Main Gear** with the rest of the gears and lock the **Spooler - Rod** printed part in place using the **Spooler - Rod Nut** printed part on the threaded side of the rod.



4.11. STEP – 11 ASSEMBLING THE HOTEND AND ATTACHING THE ELECTRONICS

TOOLS

M3 Hex

M4 Hex



HARDWARE

1X - M3x4mm screw

1X - M3 Grub screw

2X - M3x14mm screws

2X - M3x16mm screws

2X - M3x6mm screws

4X - M4x8mm screws

4X - M4 t-nuts

Print Head Cover

Heatsink

Heater block



2X - M3x14mm screws



2X - M3x16mm screws



4X - M4x8mm screws



4X - M4 Tnuts



2X - M3x6mm screws

ELECTRONICS

Creality 4.2.2 Board

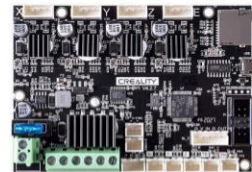
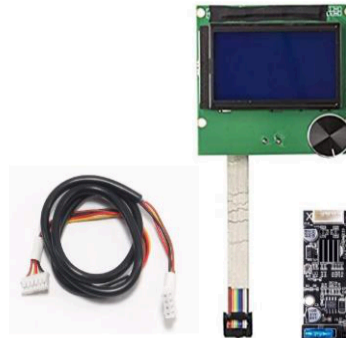
LCD and Cable

NEMA 17 Motor Wire

Thermostat Wire

Heater Wire

16 Gauge Wire



Creality 4.2.2 Silent Board

PRINTED PARTS

PART 12: Top - Back Plate Mount

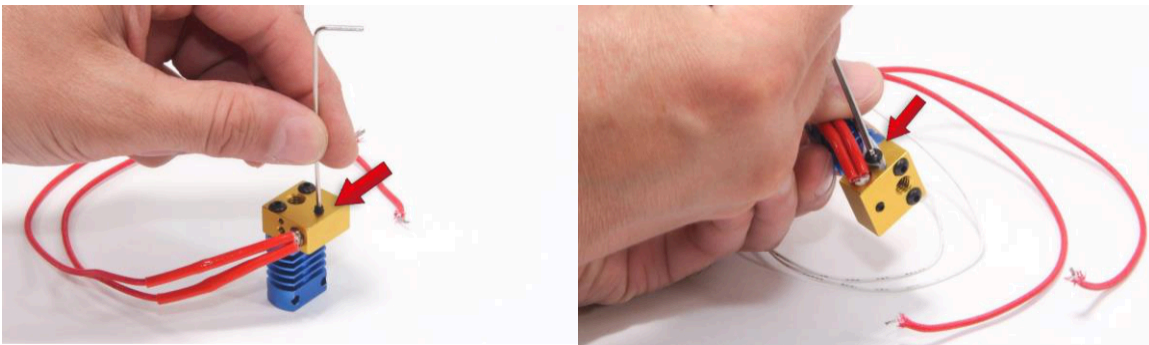


INSTRUCTIONS

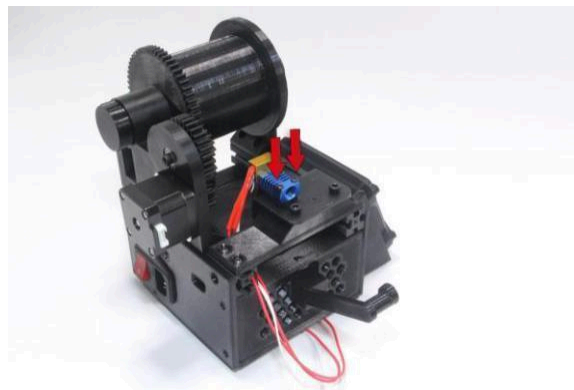
Attach the **Heater block** to the **Heatsink** using the **2X - M3x14mm screws**.



Attach the **Heater** and **Thermostat** wires to the **Heater block**.



Mount the **Heatsink** to the **Backplate** with the **2X - M3x16mm screws**.



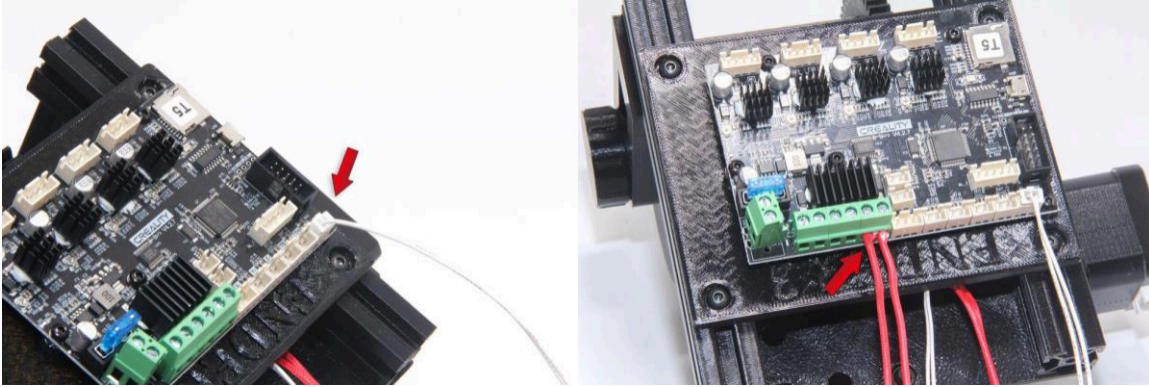
Mount the **Print Head Cover** to the **Backplate** with the **2X - M3x6mm screws**.



Connect the **Hotend** and **Thermostat** into the board using the supplied wire diagram.

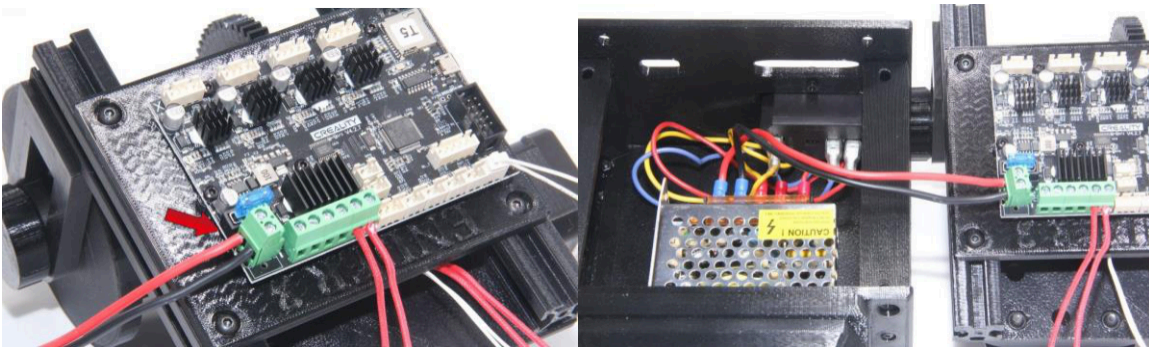
Placement of these wires can be installed either side as they are **non-polar**.

NOTE: If you have cut any wires, or your thermistor and/or hot end wires do not have connectors, you'll need to add JST connections to the ends for connection to the mainboard.

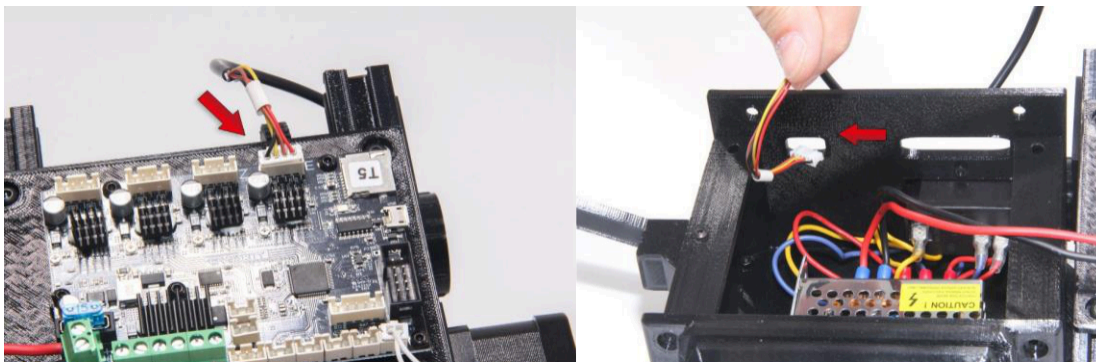


Pro Tip: Take a moment to wrap the wires up neatly for placement and closing the unit during completion!

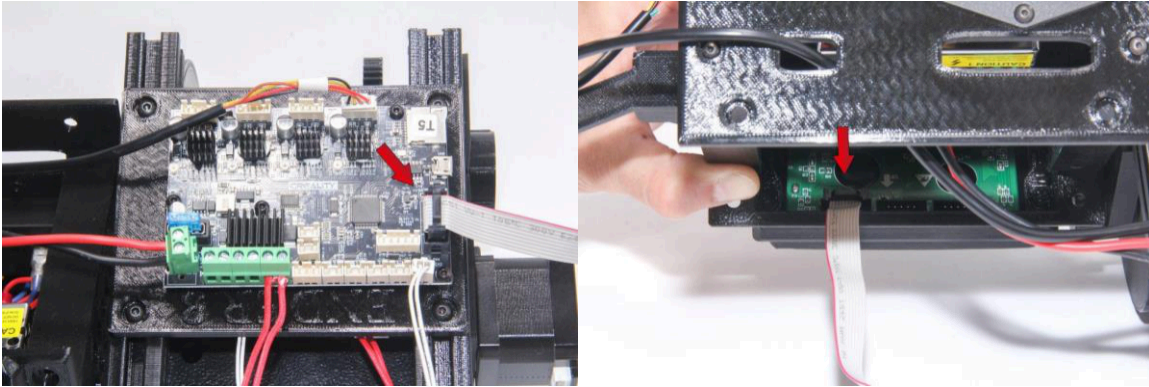
Connect the **Black(-)** and **Red(+)** wires to the board from the **PSU**.



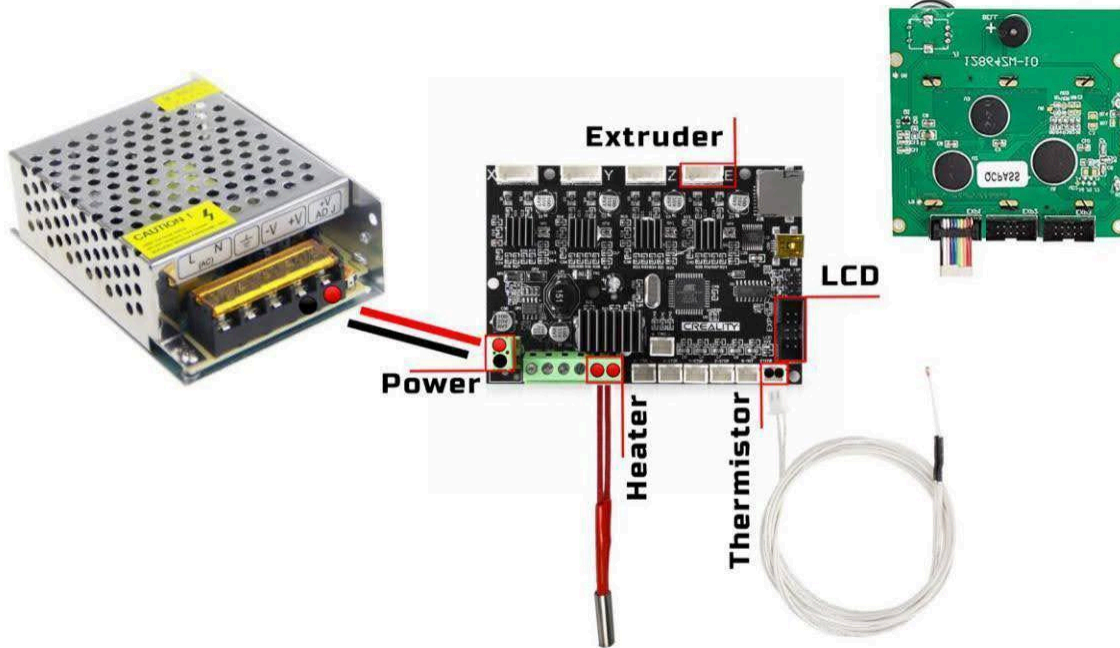
Connect the **Nema 17 Stepper Motor 42x40mm** to the **Extruder (E) connection** and feed the wire out the back hole where it will later be connected to the motor.



Connect the **LCD wire** to the board and to the back of the LCD to the farthest port on the left of the controller (**EXP3**).



Double check your work! Electronics should be wired as follows.



For external power (wall outlet power), connect external power to your PSU, and PSU switch in accordance with the PSU and Switch Manufacturer recommendations and safety precautions. For liability purposes, this is not covered in this documentation.

NOTE: If your PSU has an input voltage selector switch, be sure to switch it to the correct voltage for your country's external power voltage.

4.12. STEP – 12 ELECTRONICS TEST & CALIBRATION

TOOLS

Phillip Head Jewelers
Screwdriver
Digital Multimeter
Alligator clips



HARDWARE

N/A

ELECTRONICS

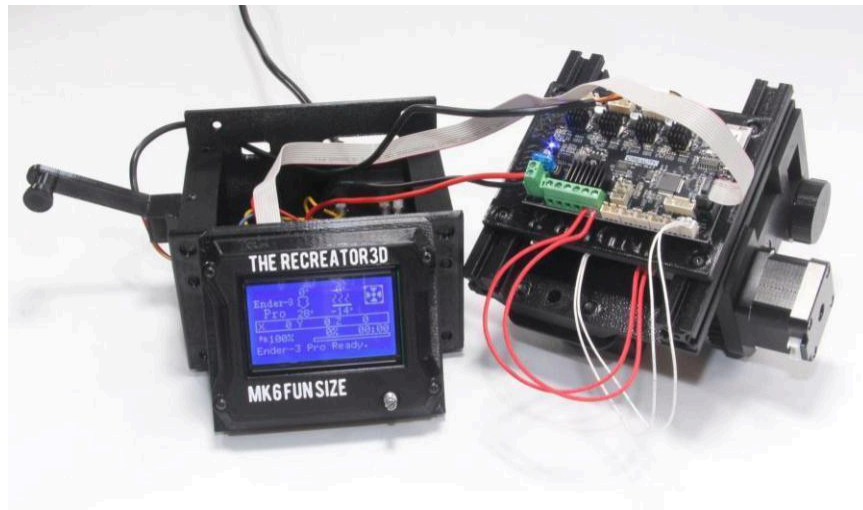
N/A

PRINTED PARTS

N/A

INSTRUCTIONS

Once external power is connected in accordance with the PSU and Switch Manufacturer recommendations and safety precautions, **Power on the unit** and see that everything works properly.

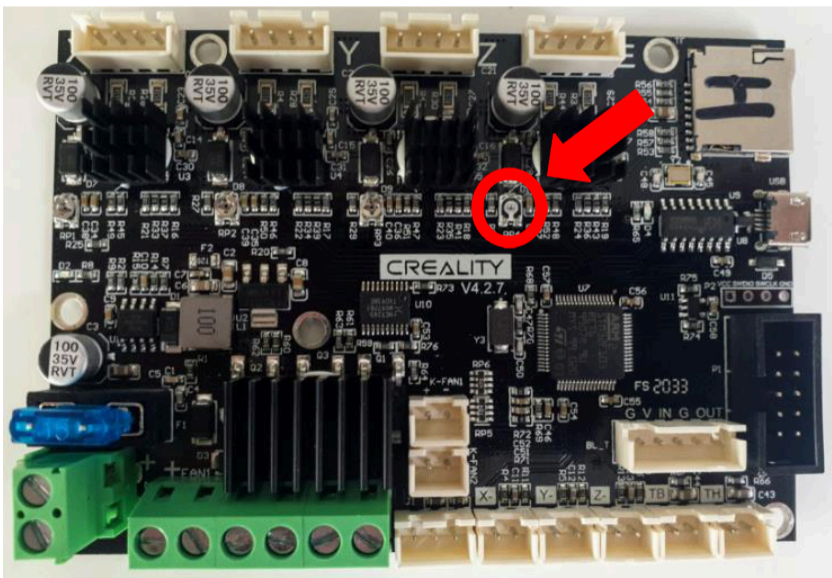
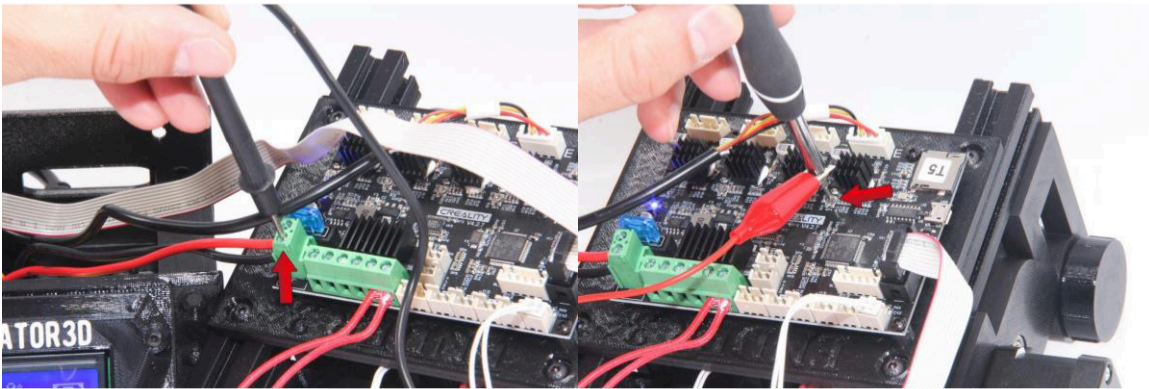


The LCD should light up and function. The thermistor should read the room temperature. You should be able to heat the hot end and run an extrusion command to check the motor. This should show that all your connections are properly mounted.

Use a **Digital Multimeter** set **DCV 20** Extruder motors of the **Red(+)** on the screwdriver and **Black(-)** on the power

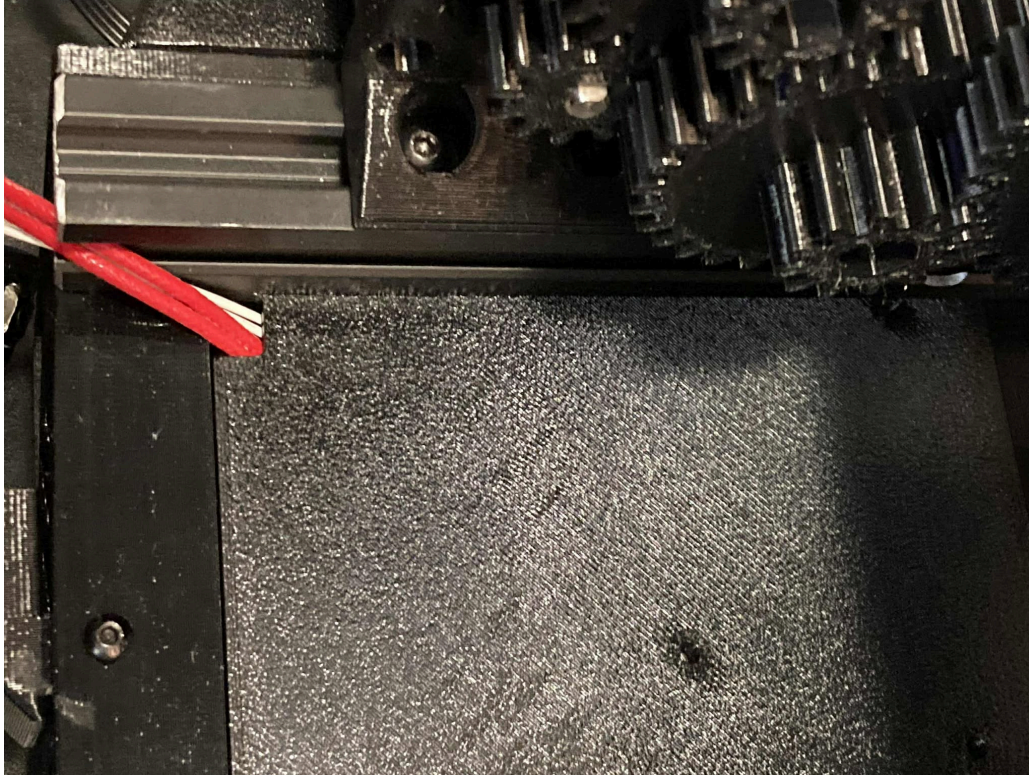
to calibrate the **VREF** on the steppers

CAUTION: Be careful of multimeter probe placement to avoid causing a short which may damage the mainboard circuits.



TURN THE POWER OFF AND UNPLUG THE POWER CORD BEFORE CONTINUING

Place the top part of the build back onto the base and run the wires for the hotend out towards the back making sure there are no restrictions.



4.13. STEP – 13 ATTACHING THE BACK HANDLE AND LCD KNOB

TOOLS

M4 Hex



HARDWARE

2X - M4x12mm screws

2X - M4x8mm screws

4X - M4 t-nuts



2X - M4x12mm screws



2X - M4x8mm screws



4X - M4 Tnuts

ELECTRONICS

N/A

PRINTED PARTS

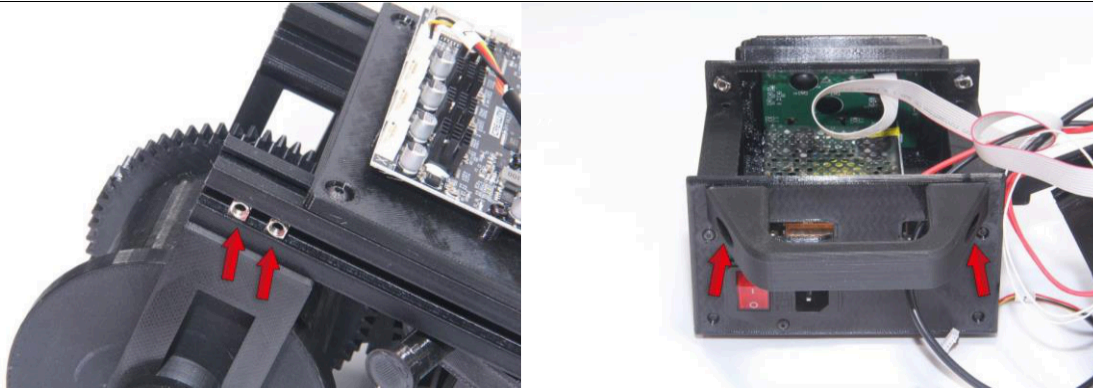
PART 27: Top - Handle

PART 28: Base - Bottle Cap LCD Knob



INSTRUCTIONS

Mount the **back handle** to the build with the **2X - M4x12mm screws** and **2X - M4 t-nuts** for the back handle.



Attach the **front cover** to the 2020 using the **2X - M4x8mm screws** and the **2X - M4 t-nuts**.



Align the **2020 profiles** into the t-nuts and lock them into place to lock the top into the bottom of the base.

Plug the **Extruder Motor Wire** into the **Nema 17 Motor**.

Attach the **Bottle Cap LCD Knob** and screw on your favorite Soda Bottle Cap.



4.14. STEP – 14 FINISHING THE REMAINING PARTS

TOOLS

A Drill (any drill will do)

1.6mm Drill Bit

6MM Wrench



HARDWARE

M6 Nozzle

4X - M3x6mm screws



4X - M3x6mm screws

ELECTRONICS

N/A

PRINTED PARTS

PART 29: MiniSpooler Enclosure – Top

PART 32: MiniSpooler-Bottom



PART 30: MiniSpooler Enclosure – Bottom

PART 33: MiniSpooler-TurnKnob

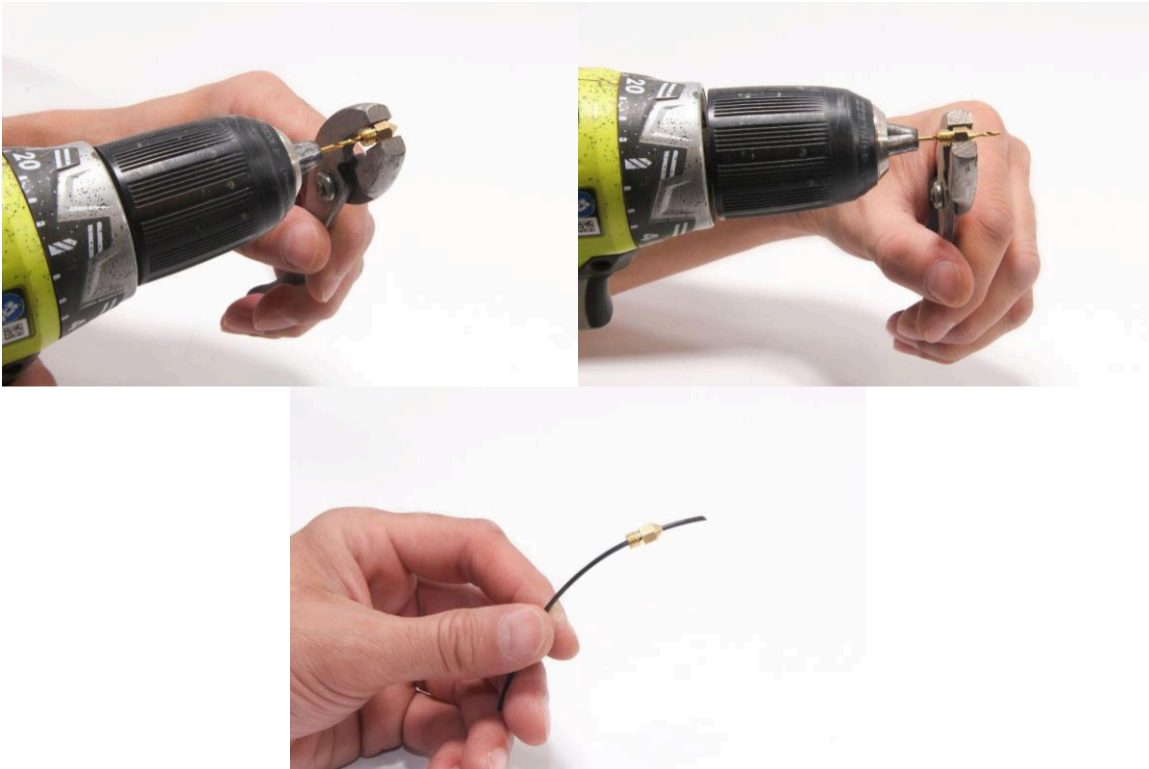


PART 31: MiniSpooler – Top

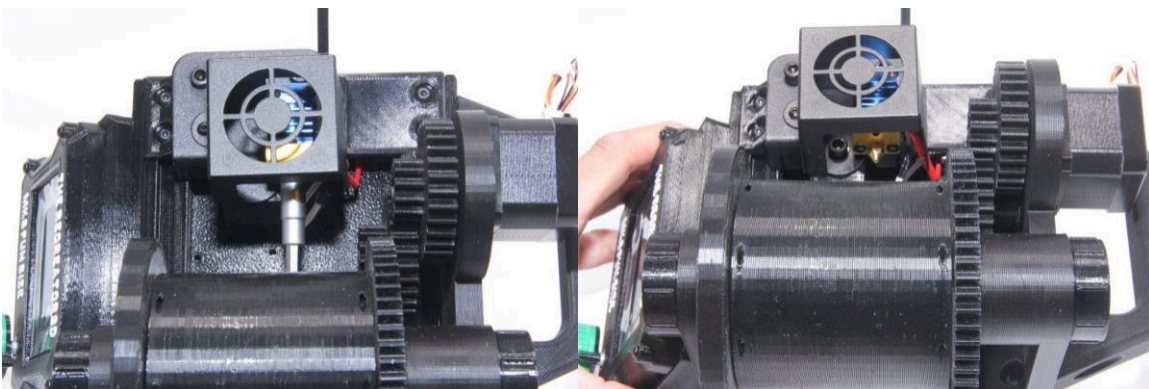


INSTRUCTIONS

Drill the nozzle using the 1.60mm drill bit, drilling until you are able to pass standard 1.75mm filament through the nozzle. This may take several tests and attempts before you find the filament just able to pass through. It's good to do this slowly and gradually so as to not blow out beyond the diameter needed.



Attach the **nozzle** to the **heat block** using a 6mm Wrench.



Connect the **MiniSpooler - Top** and the **MiniSpooler - Bottom** printed parts together with the **4X - M3x6mm screws**.



Put that **MiniSpooler** inside the **MiniSpooler Enclosure - Bottom** printed part. Put a small bead of glue around the enclosure's lip and secure the **MiniSpooler Enclosure - Top** printed part and allow it to dry.



Use the **MiniSpooler-TurnKnob** printed part to help spin the spooler.



Motor Direction for MK6 Spoolers



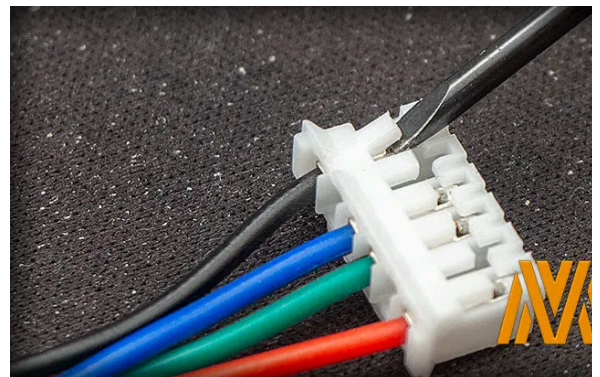
The direction of the MK6 spoolers isn't 100% crucial—most users have found that even if the motor spins in the "wrong" direction, it still works. **However; the intended direction for all of these models is counter clockwise**, as indicated by the direction of the above image.

If your spooler isn't turning in the intended direction, you have several options to change it:

Option One: Reverse the Motor Polarity

1. Use a **small pointed tool** to undo the pins on the connector.
2. **Reverse the pins:** Switch the two pins on the sides and the two pins in the middle.
3. This will change the direction of the motor.

Recommended if you're mechanically comfortable! 🛠️



Option Two: Change the gCode Command

1. Open the **speed.g** file with **Notepad** or your preferred text editor.

Find and modify this line to reverse the direction:

scss

CopyEdit

GO E-100 F600 ; Move E in the opposite direction

- 2.
3. **Save** the changes and re-run the gCode.

Best for those who prefer a software fix! 

Option Three: Modify the Firmware

1. If you're proficient in changing firmware, you can adjust the motor direction here.

Which Option to Choose?

- **Option One:** Great for those comfortable with hardware adjustments.
- **Option Two:** Best if you want a software solution without touching the motor.

The Community Bottle Cutter: Turning Trash Into Treasure!

The Community Bottle Cutter isn't just a tool – it's a step toward reclaiming valuable resources and turning everyday waste into high-grade filament.

By incorporating coins into the cutting process, this unique feature symbolizes more than just precision; it's a reminder that you'll always have two cents. Even if you're not rolling in money, you'll always have enough to get by and make a difference with your DIY recycling efforts.

The coins also help ensure the PET1 strip stays even, preventing the material from becoming too wide, which could cause binding during pultrusion and affect the extrusion process.

The real beauty lies in the “Trash into Treasure” mindset. With this bottle cutter, you're transforming discarded plastic into something valuable – filament that can be used for all kinds of creative projects!

So, while you're reclaiming plastic waste, you're also reclaiming a little bit of money

– not a fortune, but enough to make a difference!

The Community Bottle Cutter is your tool for financial empowerment, sustainability, and creative growth.

You'll always have a little something to keep moving forward, because even small steps can make a big impact...but that's just, My Two Cents!

Happy Recreating!



THE RECREATOR 3D

All Parts and Info

All parts and additional details can be found here:

<https://www.printables.com/model/352729-the-recreator-3d-mk6-fun-size-a-diy-pet1-plastic-b/files>

Print All Parts

Print all necessary parts for The Recreator 3D Community Bottle Cutter before assembly.

M3 SIZE

QTY	PART NAME / DESCRIPTION	NOTES
4	M3x30 Screws	
4	M3 Nuts	

M5 SIZE

QTY	PART NAME / DESCRIPTION	NOTES
2	M5x34 Bolts	holding the bearings
2	M5 Nuts	

OTHER HARDWARE

THE RECREATOR 3D

QTY	PART NAME / DESCRIPTION	NOTES
2	USA Pennies	Not supplied
1	Magnet Wand	holds the bottle upright
2	625ZZ Bearings	cuts the bottle
1	Jot Card Retractor	ads backward tension

PRINTED PARTS & FILLER

PART NAME / DESCRIPTION	NOTES
Printed Parts	
Filler for the weight	Not supplied

5. BOTTLE CUTTER ASSEMBLY INSTRUCTIONS

THE RECREATOR 3D

TOOLS

M3 Hex
M4 Hex



HARDWARE

4X - M3x30 Screws
4X - M3 Nuts
2X - M5x34 Bolts (for holding down the bearings)
2X - M5 Nuts
2X - 625ZZ bearings
2X - USA Pennies
1X - Jot Card Retractor
1X - Magnet Wand



ELECTRONICS

N/A

PRINTED PARTS

Community Bottle Cutter - Top
8mm.stl

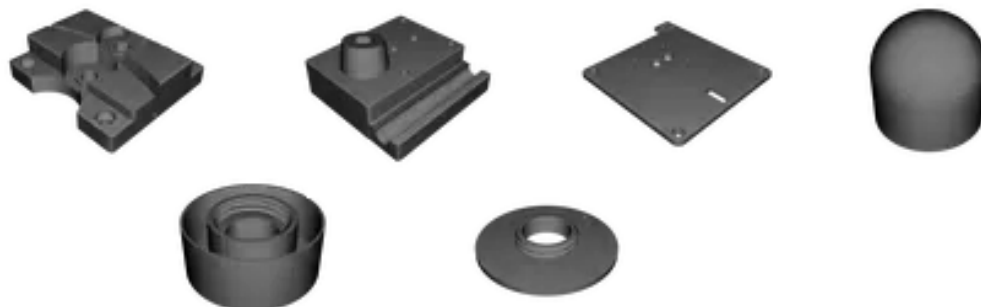
Bottle Cutter Retractable Wand
Topper.stl

Community Bottle
Cutter - Bottom.stl

Community Bottle Cutter -
Middle.stl

BottleWeight-Top.stl

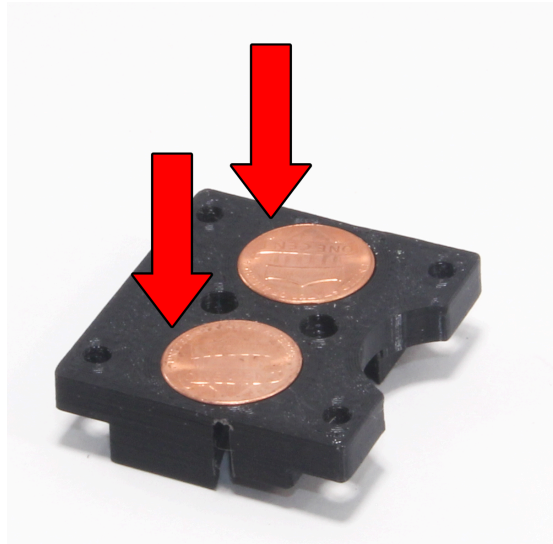
BottleWeight-Botton
.stl



INSTRUCTIONS

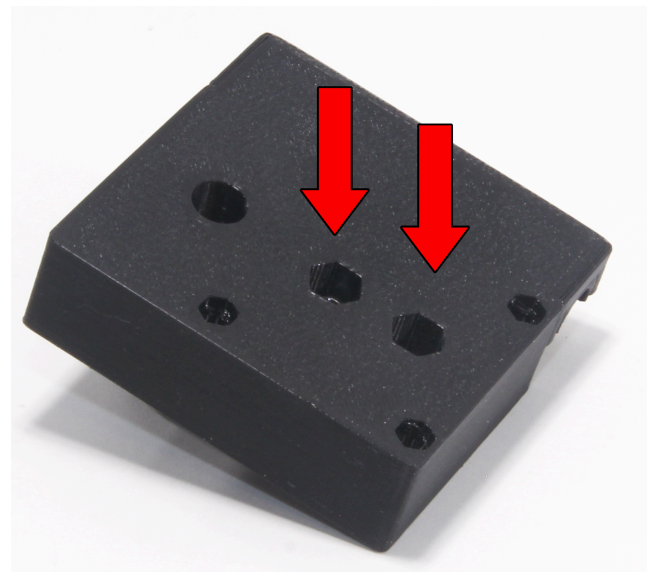
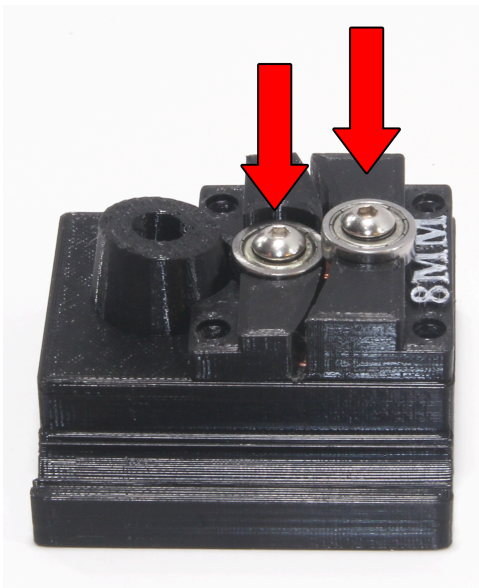
1. Install the Pennies/Washers

Take the top printed part and snap two pennies into place at the bottom.



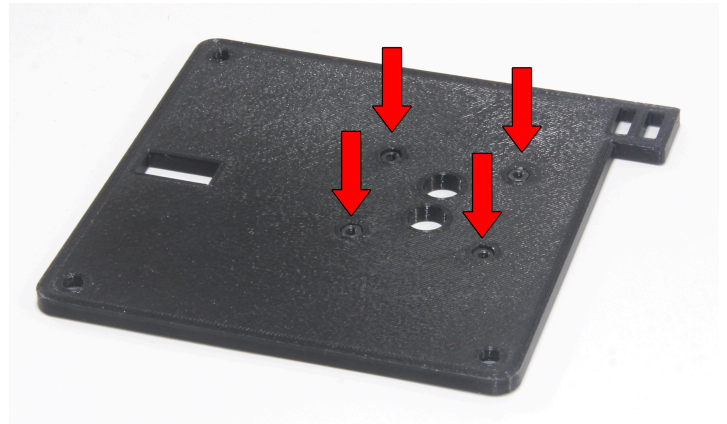
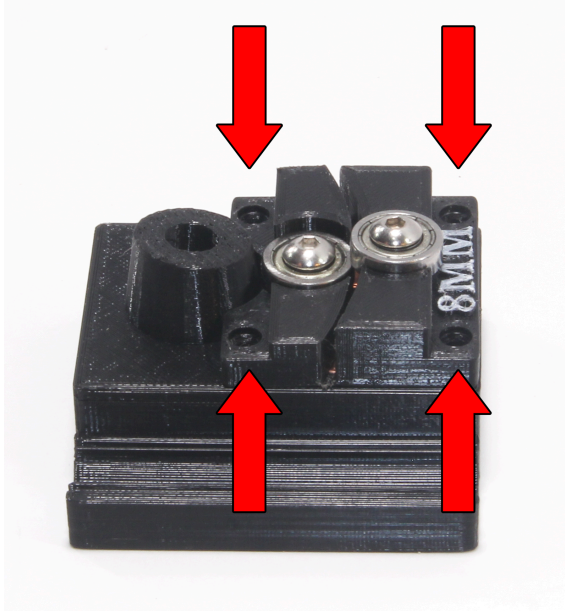
- Set the sanded bearings in place.
- Bottom bearing: sanded side up.
- Top bearing: sanded side down.

Place the M5 bolts into the bearings, securing them to the M5 nuts. ♦ Set the M5 nuts inside the middle printed part using a screwdriver.



THE RECREATOR 3D

Insert 4 x M3x30 screws into the top and secure them to the bottom printed part, locking them using the M3 nuts.



✓ Final Checks

- ◆ Ensure Bearings are Flush – moving the top should also move the bottom.
- ◆ Tension Check – they should be tight but not locked in place.

🔧 Mounting Options

- For Tabletop Use
 - Secure with clamps

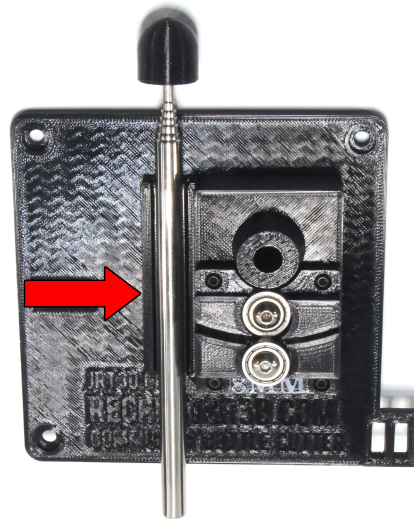
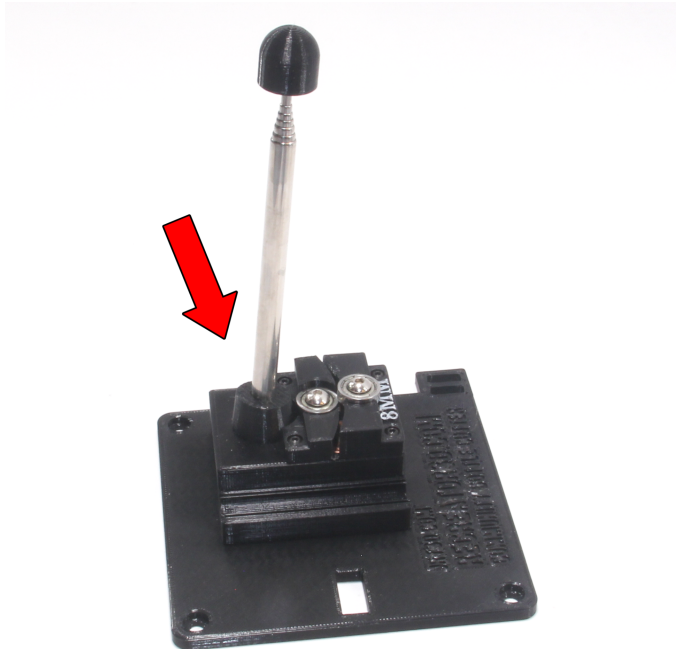
🔍 Final Attachments

THE RECREATOR 3D

Use some glue to attach the Printed Cap to the wand for safety

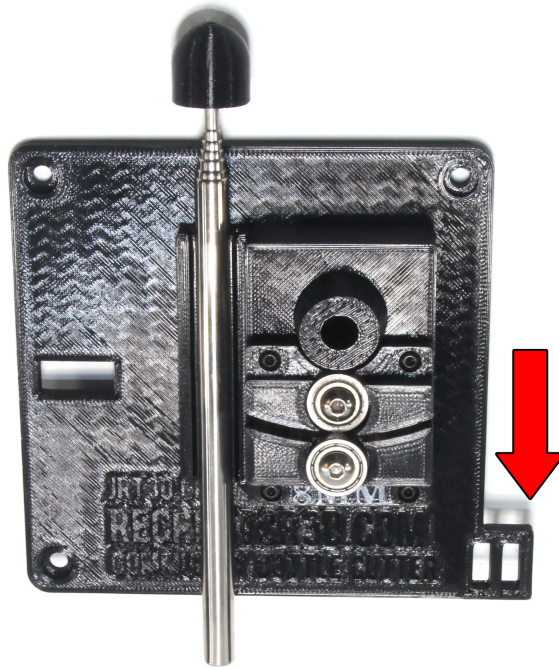


Insert the Wand into the base for use or snap in the side for storage.



THE RECREATOR 3D

Snap on place the Jot Holder to the back of the base.



Bottle Weight Preparation

- ◆ Fill the bottom of the Bottle Weight with cement or rocks for added mass.
- ◆ Attach the top to the bottom and snap the Jot Holder onto the weight.
- ◆ Place the weight on the bottle to create tension while cutting.

How to Use

1. Mounting Options:

- Table Mount: Use clamps.
- Handheld: Secure it firmly.

2. Loading the Cutter:

- Cut a starter strip to feed into the bearings.
- Attach the weight.
- Pull the strip forward until fully stripped.

3. Optional: Wear safety gloves for better grip.

- ◆ *Tip:* Wrap the strip around your index finger and hold it with your middle finger for added tension.

Example Use: Recreator 3D Cutting by Hand

Here's an example of The Community Bottle Cutter attached to the Recreator 3D and used manually for cutting: <https://www.youtube.com/watch?v=2IzVs7Duawc>

Enjoy your new Recreator 3D Community Bottle Cutter!

CONGRATULATIONS

YOU'VE COMPLETED THE RECREATOR 3D MK6 FUN SIZE BUILD!



What will you Recreate?