The Recreator 3D Community Bottle Cutter

All Parts and Info can be found here:
https://drive.google.com/drive/folders/1cW5EN0E1eanjk1R5po6Ts4d0qc_0PwR7?usp=sharing

- Print all the parts for The Recreator 3D Community Bottle Cutter

2 - USA Pennies or a washer the size of 19.15mm in diameter x 1.50mm thick.
There is also a second variant that uses USA Dimes or a washer 17.00mm in diameter x 1.50mm thick.

4 - M3x30 Screws

4 - M3 Nuts

2 - M3x8 Screws

2 - M3 Profile Nuts

2 - M5x34 Bolts - for Holding down the Bearings

2 - M5 Nuts

1 - Lead Screw

1 - Lead Screw Nut

1 - Lead Screw Motor Coupler - for Safety Top

4 - M3x12 - for Lead Screw Nut

1 - POM Wheel - Holds the 2 - Bearings used

1 - Jot Card Retractor

Printed Parts for the Bottle Weight

Some sort of filler for the weight - we used cement and show some $1 Rocks

Start by planning down a set of bearings. You'll need to do this with an angle grinder tool or a belt sander.

Using the M5 Nuts, set them in place inside the middle printed part.
Further set them inside with a screwdriver.

Take the top printed part and two pennies (or washers) and snap in place the pennies to the bottom of this part.

Combine the top and middle printed parts. Set the planned bearings in place. The bottom bearing's planned side should face upwards and the top bearing's planned side should face downwards.

Place the M5 bolts into the bearings and downwards into the M5 Nuts. Tighten them in place.
Insert the 4 - M3x30 screws into the top of the combined top and middle pieces.
Connect them to the bottom printed parts and add the M3 nuts and lock the screw in place.

Connect the lead screw nut to the middle printed part with the 4 - M3x12 screws for the led screw nut.

Make sure all screws are fully tightened into place.

Double check your bearings are flush sunk with each other. Moving the top one should move the bottom. They should be tight enough to do this but not tight enough to lock in place from movement.

If using for The Recreator 3D build, install the 2 - M3x8 Screws and Profile Nuts.
You can also use the cutter on a table top with some clamps.

Attach and snap in place the Jot Holder to the base of the bottle cutter.

Attach the Lead screw coupler to the end of the lead screws. This helps as a safety cap while working with the unit. Attach the lead screw to the lead screw nut on the middle printed part.

The bottom of the Bottle Weight can be filled with cement or some rocks. The top gets screwed onto the bottom and you can attach the Jot Holder for tension to the weight.The weight is put onto the bottle and adds weight and tension while cutting the bottle.

As mentioned previously you can mount the cutter to a table with some clamps and use the cutter by hand.

To load the cutter, start with cutting a starter strip to load into the bearings and Attach the weight. Pull the strip forward until the bottle is fully stripped. It's suggested to use a safety glove for this process but is not needed. You can wrap the strip around your index finger while holding with your middle finger. This adds tension for an easier pulling experience.

Next is an example with The Community Bottle Cutter attached to the Recreator 3D cutting by hand.