

Recreator 3D was first released in November 2021. With months of initial revisions, there is always room for improvements. Since that time a few minor changes have been revised to the MK3 Variants among being released. As well a new introductory unit; the MK5 Plug-in and the MK5 Kit, due to popular demand and the lack of options to acquire the Xvico X3S which the original was built from..

The Bottle Cutter and Mounting Plate:

This part has had a few changes. The main base has been extended in equal dimensions to allow for the cutter to be pulled while converting, or it can be mounted at a 45 degree and pulled towards yourself for a manual pull. Some bottles may be too strong for the Recreator and hand pulling the strips will be less stressful on the motor(s).

The JOT Tensioner mount has been moved from the side and towards the back. This allows for a better tension placement to keep the bottle from slipping away from it's desired strip width.

The Community Bottle Cutter has been released. For anyone looking to Do It Yourself. The mounting plate is similar to the PBACC Tool variant. Unfortunately the PBACC Tool is Ukrainian made and our friends have had to stop shipping due to the circumstances of the ongoing situation. I hope to be able to promote their tool again soon, as it's one of the best commercial options to easily make the striped material.

Mini Spooler and Mount:

These little spoolers are great for spooling up manually precut strips. As well they can be used for finished filament pulls. They've got slots and holes for locking in both material forms. The Spool Holder has its own base but can also be mounted into the current Guide Key slot.

Blower Fan:

This part has been changed to allow for a wider cooling path.

Ultimately though, neither of the fans are truly needed. If trying to make the build cheaper or with fewer items, both fans can be excluded. The filament will cool naturally while being processed among the pull. By shutting down the unit or shutting down nozzle temps, the hotend will cool in enough time to allow for the next strip to be loaded without any issue.

Tension Rod and Guide:

Due to some efforts to find the originally suggested metal rod, there is now a printable variant. The slotted guide was not working as intended; a Rounded Guide is now available, and the spacers can still be used but are also optional.

Colorizer Tool:

The Colorizer Tool is finally working with mini sharpies and holds up really nice and clean, unlike the first concepts. The sharpies can be recapped and put into storage until needed for the next use. It can also be mounted to a table and used manually with any type of filament. Pulling back and forth several times covers the filament in several layers. Gloves are suggested while manually pulling.

MK3 Single Motor Mount:

A Single Motor; All In One Mount has been created for the Spooler, If only one motor is available. Previously the mount was supplied among the X3S Build. Though; the Dual Motor Mount is always suggested, even with an unpowered secondary motor and gear to keep the tension proper among the main spooler gear.

MK4Mini Spooler:

A smaller Version of the MK3Pro Dual Motor. This is still being tested among a few revisions. Some have gotten it to work without issues in all varying forms, but have also run into equal tensioning issues. It's still being worked on and is listed as an experimental option to reduce the units size to a Smaller Form Factor. If you use this option in any way, please report back on it's ability to work for your production needs.

MK5 Single Motor Dual Geared Mount:

The MK3 Single Motor Mount can be used for basic pulls. Some tensioning issues can be found on irregular cuts among bottles varying in thickness. With one motor being the majority of options for basic builds, the MK5 Single Motor Dual Geared Mount is the best option yet. It has doubled the torque as the MK3 unit and runs the motor much smoother and less hot. It's able to pull much harder pulls among spooling with less effort. If the MK3Pro Dual motor mount is not an option. The MK5 Single Motor Dual Geared definitely is.

MK5 Plug-In:

XViCO's X3S was the original inspiration for The Recreator 3D. Visually, I fell in love with the X3S's small form electronics box. With the two 2020 Profiles attached, it's lightweight and compact. With it being made from the X3S Parts, Side by side these two units look great!

When I had first started using the X3S I was informed there were still well over 1,000 units available to the market. Somewhere among the last shipment, there was a lost ship with 200 units to be sent for the Holidays which never made it. XViCO has no interest in further eBay or Amazon sales and only to private dealers among the rates to ship only going upwards.

With all this in mind, among Creality being a Dominant supplier. The Ender 3 has been an ongoing request. Primarily due to the lower cost and ease to purchase. The Ender 3 has been able to be acquired for \$99 in some stores like Micro Center. Personally, among the community funding my purchase of an Ender 3 for conversion, I was able to get one new for \$140 from eBay. At the highest I've seen Ender 3 for \$180 elsewhere like Amazon.

While getting an Ender 3, I heard many people only had room for their one and only 3D Printer. They felt breaking it down was not a desired option. They wished for another option to still Recreate, but using their main printer to do so. After opening the printer. I instantly felt the same once I had it printing. It's a great printer for such a low cost. I didn't want to destroy it as It produced great quality prints (using the new board Version 4.2.7 - the current gcode for the X3S Recreator works with this board and firmware version).

With some spare 400mm 2040 Profiles - The MK5 Plug-In started to form. I added side handles that completed the frame into a solid form. A set of feet and The Recreator 3D parts fit 100% perfectly to this frame without any additional work.

Using secondary spare parts from an Ender 3. An Ender 3 Hotend Kit, A 40-42 Extruder Motor, a motor extension wire. Splicing the wires of the main Ender 3, we add JST connectors and use it to drive the spare parts attached to the MK5 Plug-In with a gcode command. Afterwards it can be reattached to itself and function normally.

MK5 Kit:

The MK5 Kit was further birthed from the Plug-In concept. Now we know the 4.2.7 Board is able to be used with the current gcode that the X3S recreator uses. For the people who wanted the stand alone version. With a 24 Volt 300 Watt power supply, an older Ender 3, 1.1.4 board and LCD Controller. I bought a power extension due to placement needs. Using the Plug-In as the main frame, I worked on Legs and Feet. Power Supply Mounts. Board mounts and an LCD Enclosure.

I could easily tinker and play openly with everything while I learned the best methods to drive the motors. I learned the firmware of the 1.1.4 boards have some limitations in how it's able to function. As well only being able to properly drive one motor without firmware updates. Firmware updates are possible, but I wanted to get the unit working without the need. Most people; myself included, can easily get lost among a firmware update on these older boards.

Safety First though! Soon I finished off the enclosure among a final design. I started to work with another Ender 3 Pro, firmware 1.6.7. This has it's own varying firmware limitations compared to the 1.1.4 board. Thus, a different way of running the gcode.

With all this in mind, I'm proud to be releasing the MK5 Kit: Ender 3 Edition. It will cover the use of Ender 3, Ender 3 Pro, and Ender 3 Silent. All 3 of these varying boards and firmwares are able to be used.

With further expansion of the MK5 Kit, there will be other showcased Additions. Currently I have in the works or future intentions of an XViCO X3, Creality CR-10, Robin Nano 1.2, Ramp 1.4, Anet E4, Anet A8, as well a stand alone that works without 3D Printer Boards, and one that simply plugs in to heat and is manually hand turned.

Ultimately I hope to see others using the Mk5 Kit among their own electronics and what they are able to Recreate to make the Recreator function for their needs.

Many things are in the future for The Recreator 3D and social media has been a great influence on many aspects of it's growth. Thank you all for you contributions.