

The Filament Forge

Working Components

Section 1: Shredding

- Plastic bottles without the cap will be carefully fed into the shredder teeth.
- The shreds from the bottles will be caught and funneled from the shredder into the piping system.

Section 2: Heating + Extruding

- Band heaters melt the plastic shreds.
- Auger rotates which slowly pushes the melts to the end cap.
- Melted plastic squeeze through the fitted hole in the end cap.

Section 3: Spooling + Cooling

- A fan cools the material as it exits the extruder.
- A heat resistant tool will securely grab the edge of the material and slowly guide the melts towards the rotating wheel.
- The wheel (spooler) spins and winds the filament.