



Industry method



Custom Design

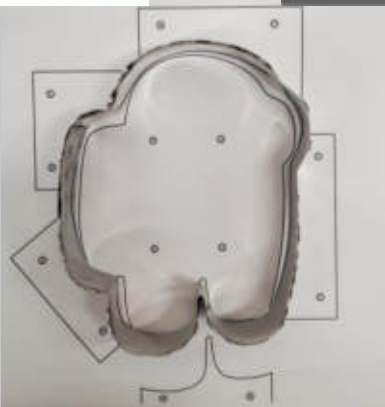
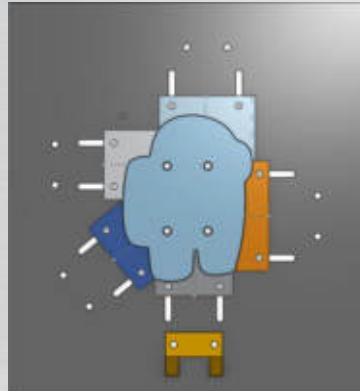
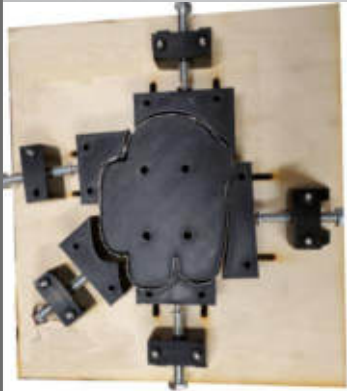
MANUFACTURING ENGINEERING

Project 1 Cookie Cutter

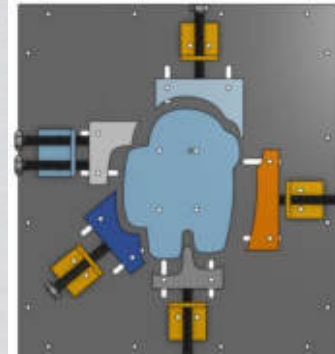
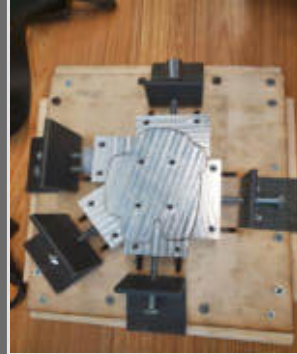
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Product Development

Iteration 1: 3D Print



Iteration 2: Robust Machining



Process for Final Design

Phase 1: Design and Planning

- CAD model of cutter, mold, and press dies; no convex curves.

Phase 2: Manufacturing Components

- CNC-cut aluminum mold and press dies.
- Use pilot holes for the tap and die manual threading

Phase 3: Assembling

- Drill tight-clearance holes in steel L-brackets.
- Stake washers on worm screws for even load.
- Use hex bit socket and wrench for tightening.

Phase 4: Reinforcing

- Counter high bending forces with epoxy and screw-held wooden beams.

