

Deliverable B

Group 12 (Samuel, Tofehinti, Tofarati, Ojonuma, Muhammad)

Client Needs

Overall Efficiency and User Friendliness

- Jig should be efficient and save time
- Jig should be cost-efficient
- Jig should not be complex (ease of use)
- Jig should guide the drill bit

Jig Specific Needs:

- Jig should be reusable
- Jig should be durable
- Jig holes should be precise and leave little room for error
- Either make different jigs for different hinge sizes or a jig that is adjustable

Clamp Specific Needs

- Clamp should have a way to lock in place so the user can have their hands free
- Clamp should be soft in order not to damage wood
- Clamp should not have any sharp edges in order not to damage wood

Problem Statement

We must make an efficient, simple, and reusable jig which guides the drill bit and has a clamp with a non-destructive and precise locking mechanism.

Unknown Information and New Problems

- Exact limitations of the 3D Printer and how they affect our design
- Will different backset depths affect the clamp
- Material to be used for the soft part that comes in contact with the door itself