

Personalized Engraved Wooden Bottle Opener



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Santa Barbara Hackerspace
March 1st, 2022

Background

Congratulations on embarking on your personalized bottle opener project! I made these for two friends that I played disc golf with and below are the instructions to help you through the process. Remember, feel free to make adjustments and modifications as needed to suit your unique style and preferences. DIY projects are all about flexibility and customization!

You might want to experiment with different wood types, epoxy colors, or engraving designs to make your bottle opener truly special. Don't hesitate to modify the plans accordingly, but keep in mind that the math will be up to you!

Undertaking a DIY project like this implies familiarity with the appropriate tools, including saws, sanders, and engraving tools.. If you're not confident in your proficiency with these tools or any aspect of the project, it's strongly advised that you seek guidance from a mentor or experienced individual.

Disclaimer: Your safety is paramount, so always prioritize safety measures, wear suitable protective gear, work in a well-ventilated area and exercise caution while using power tools. These instructions are provided for guidance only and are not liable for any harm or injury that may occur. Please consult the manuals of all machines and supplies used to ensure proper handling and safety protocols.

Happy crafting and enjoy creating your personalized bottle opener!

Supplies List

- Wood Blanks
- [Bottle Opener](#)
- [Magnet](#)
- [Epoxy & Hardener](#)
- [Mica Powder](#)
- Sandpaper
- Scouring Pad
- Mineral Oil



Equipment

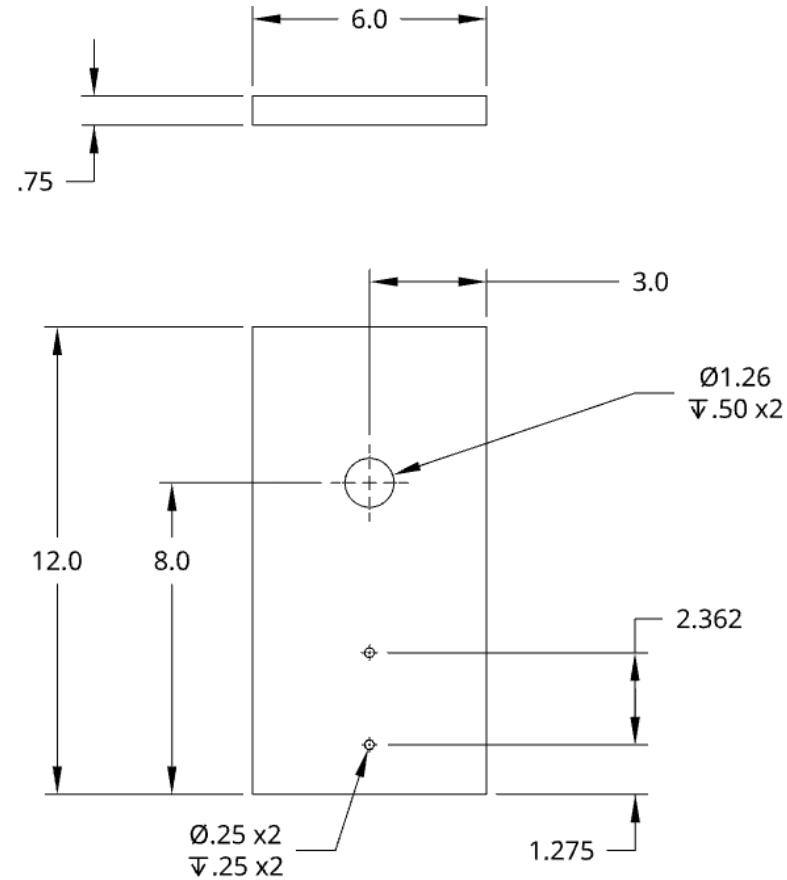
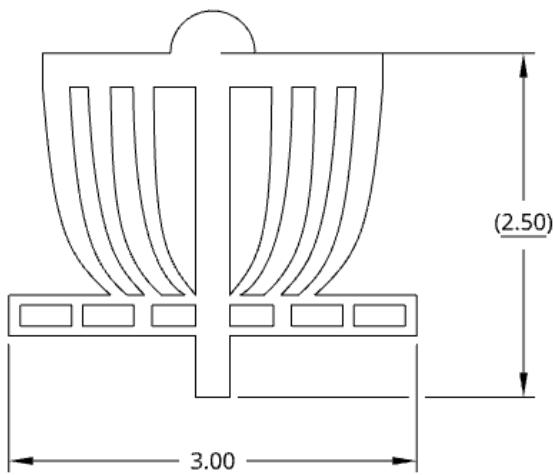
- Table Saw
- Miter Saw
- Planer
- Drill Press
- Laser Engraver (for designs)
- Sander
- Router
- Blowtorch

Used for cutting wood to final dimensions



Dimensions

- $\frac{3}{4}'' \times 6'' \times 12''$



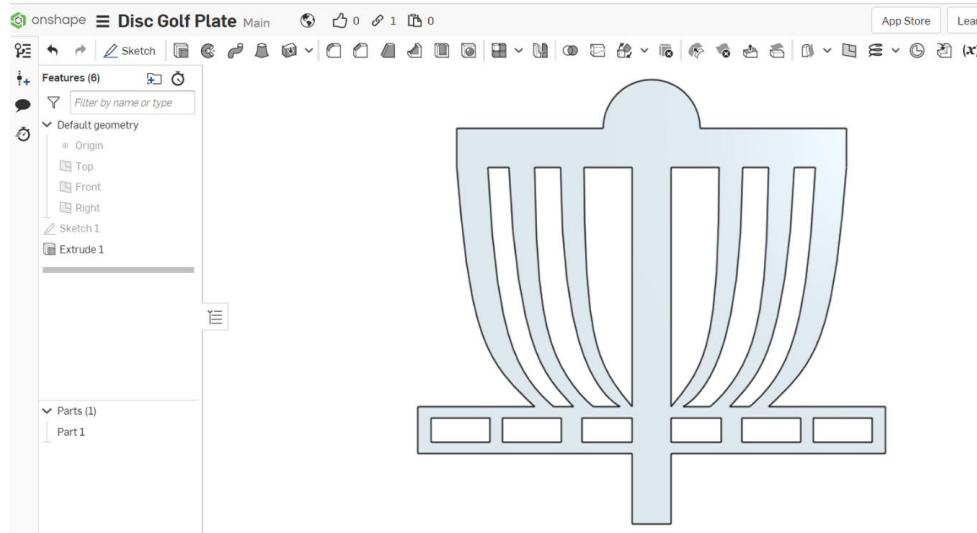
Instructions

- 1) Start with Wood Blanks and use Table Saw & Miter Saw to Final Length & Width Dimensions.
(Thickness will be finalized in a later step)



Instructions

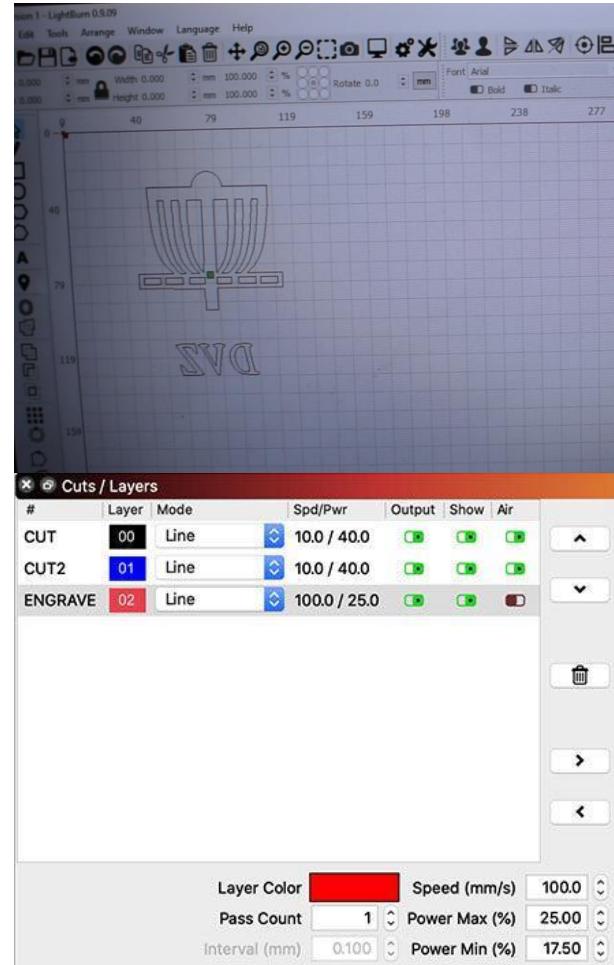
2) Customize Design & Use Inkscape to export to DXF File



Instructions

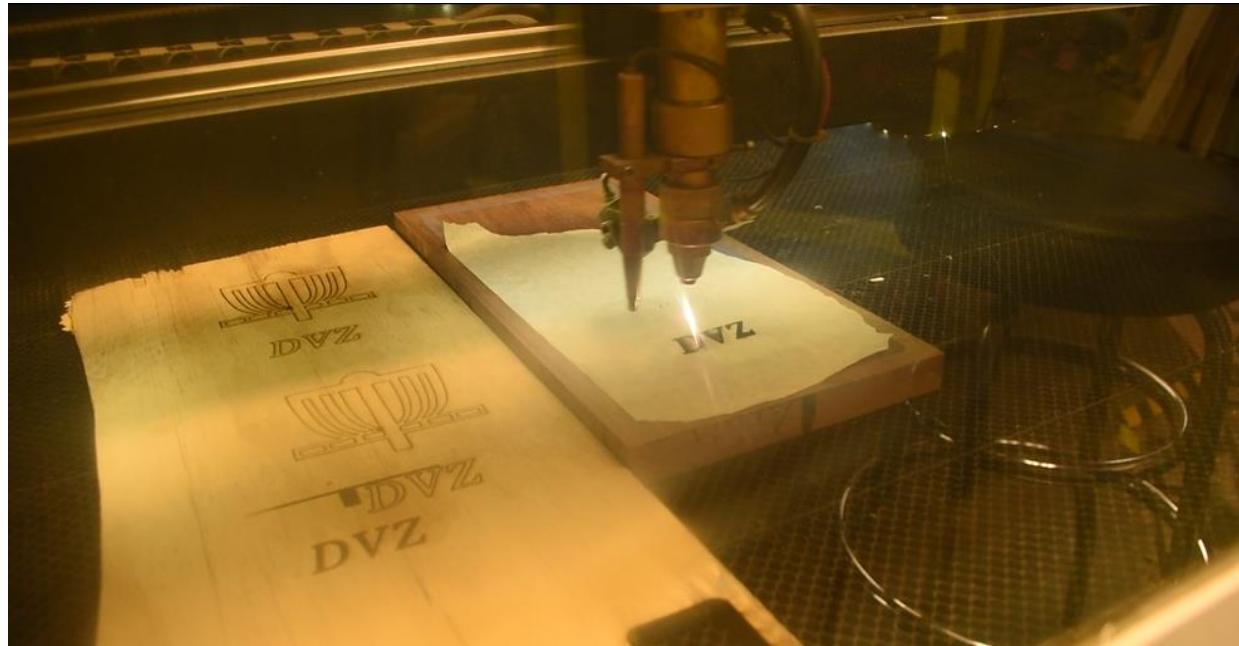
3) Laser Engrave Design onto Wood Blank

- Use dummy piece of wood to test and confirm the following:
 - Ensure workpiece is straight and square
 - Laser Parameter settings
- Place Masking Tape over finer details



Instructions

- 4) Engrave once laser power settings and workpiece alignment is confirmed



Instructions

5) Epoxy Pouring

- Follow Epoxy manufacturer instructions for proper Epoxy & Hardener Ratio (Should be 1:1)
- Mix with designated colored Mica Powder
- Pour Epoxy mix over designated areas
- Use Blowtorch to remove bubbles
- Let epoxy cure (see manufacturer instructions)

I recommend creating a small coupon of epoxy to verify when epoxy is fully hardened



Instructions

6) Plane to Final Thickness



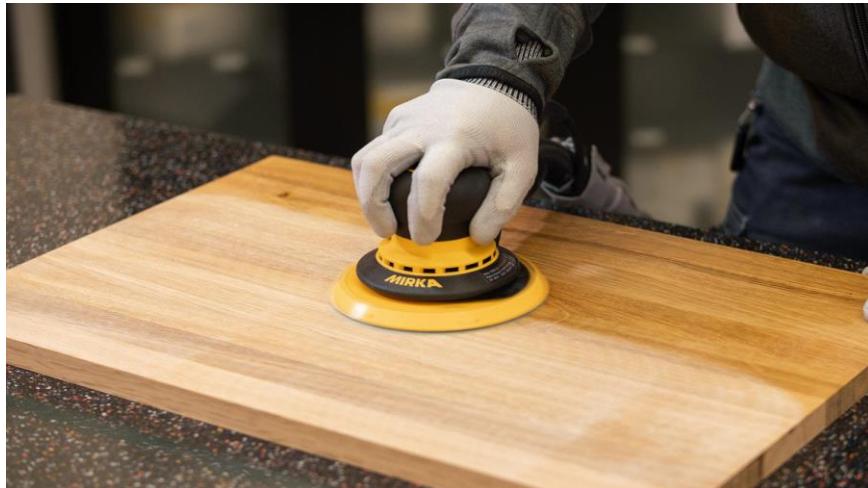
Instructions

- 7) Extrude Cut & Attach Magnet Behind Board
- 8) Fill with Epoxy



Instructions

- 9) Sand surfaces & round over corners using router
 - Start with Low Grit sandpaper and gradually work up to High Grit



Instructions

10) Apply Mineral Oil

- Cure for 24 hours
- Use Scouring Pad to remove excess oil

11) Attach Bottle Opener



Finished Product

