D1 20W Kit

USER MANUAL
Version 1.0 • Dec 2024

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Contents

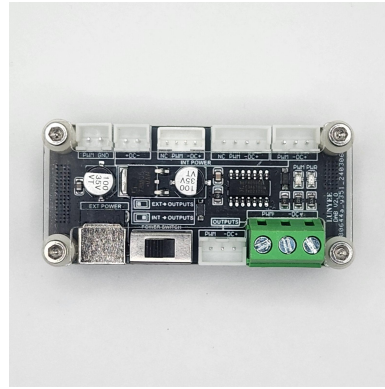xGantry

Laser Module

Dovetail Parts

Adapter Board

Screw M3x4mm x7

Adapter Cable

Module Cable

Power Supply

Power Cord

Focus Block

Part 2 Mechanical Assembly

Step 1

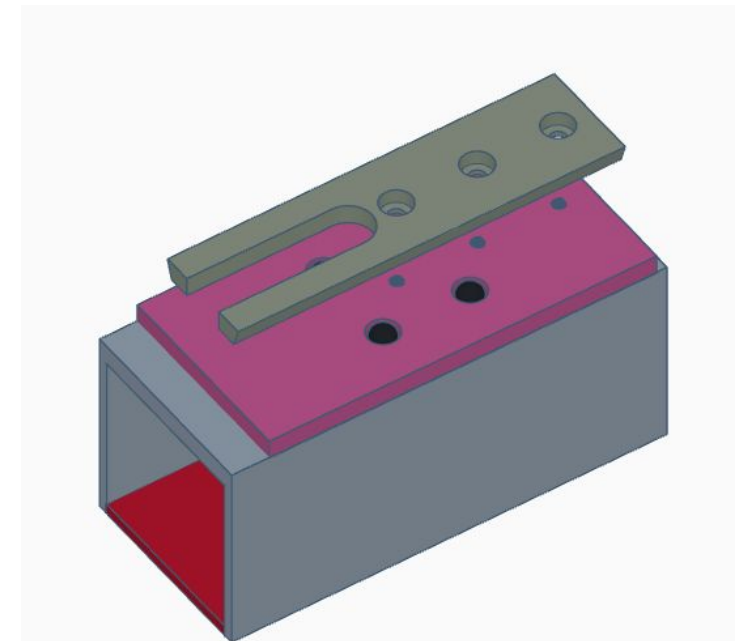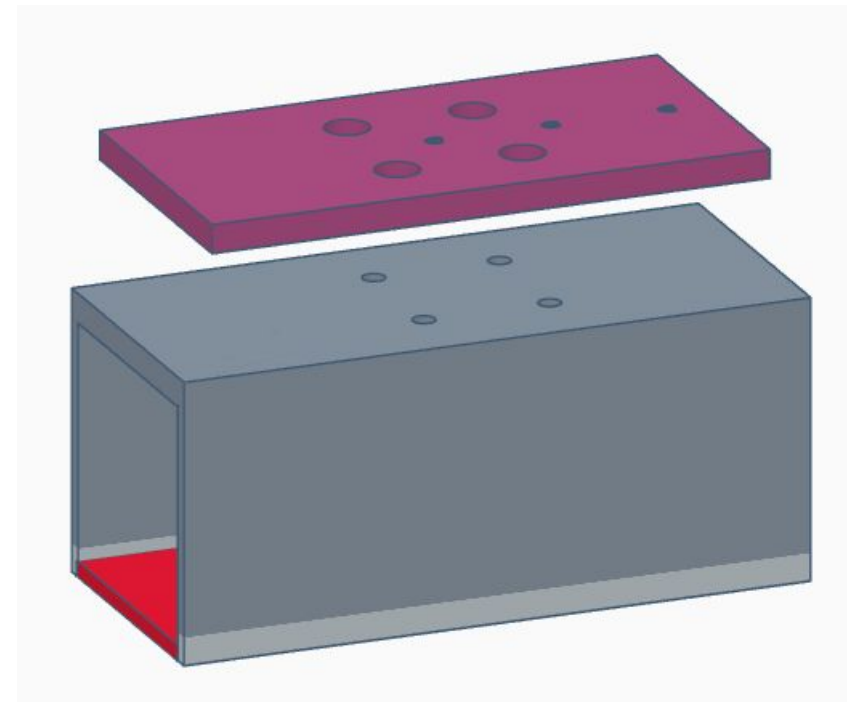Parts Required:

------Laser Module

------Dovetail Part

------Screw M3x4 x7

------Right Adapter Plate

- Assemble lower Dovetail Part with Laser Module using M3x4 x4 screws
- Assemble Upper Dovetail part with lower Dovetail Part using M3x4 x3 screws

Note: Be careful to match the alignment of both Dovetail Parts in relation to the module. Screw heads should not protrude from Dovetail Parts
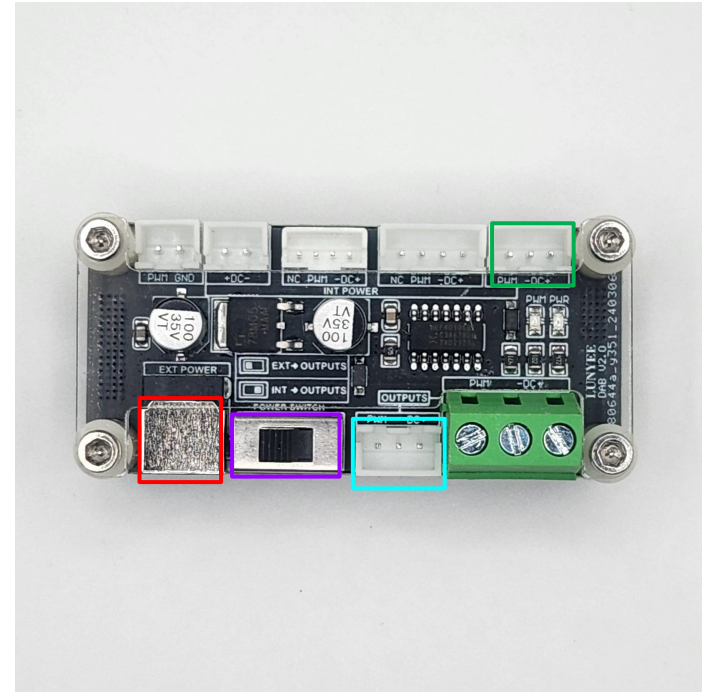
Module is now ready to be mounted to your machine as usual

Step 2

Parts Required:

------Adapter Board

------Adapter Cable

------Module Cable

------Power Supply

- Connect one end of the Adapter Cable to the Adapter Board and the other the D1 control board
- Connect Module Cable to Adapter Board
- Connect Power Supply to Adapter Board
- Make sure switch is to the left, EXT->OUTPUTS

Step 3

Parts Required:

------Laser Module

------Module Cable

------M5x12 Screw x8

------Profile Nut x8

- Connect Module Cable to Laser Module (it only fits one way)
- If you have air assist, remove the cap and connect the air tube to the Laser Module

Step 4

Parts Required:

------Your xTool D1 with
20W Upgrade

You're ready to go make some awesome stuff!

Usage Tips

Focusing

Parts Required:

------Your xTool D1 with
20W Upgrade

------Focus Block

- Lower your module until the bottom edge just touches the top of the Focus Block.
  - This handles materials up to 15mm thick
- For materials 15-20mm thick, use the second step of the Focus Block
- For materials greater than 20mm thick, use the bottommost step of the Focus Block
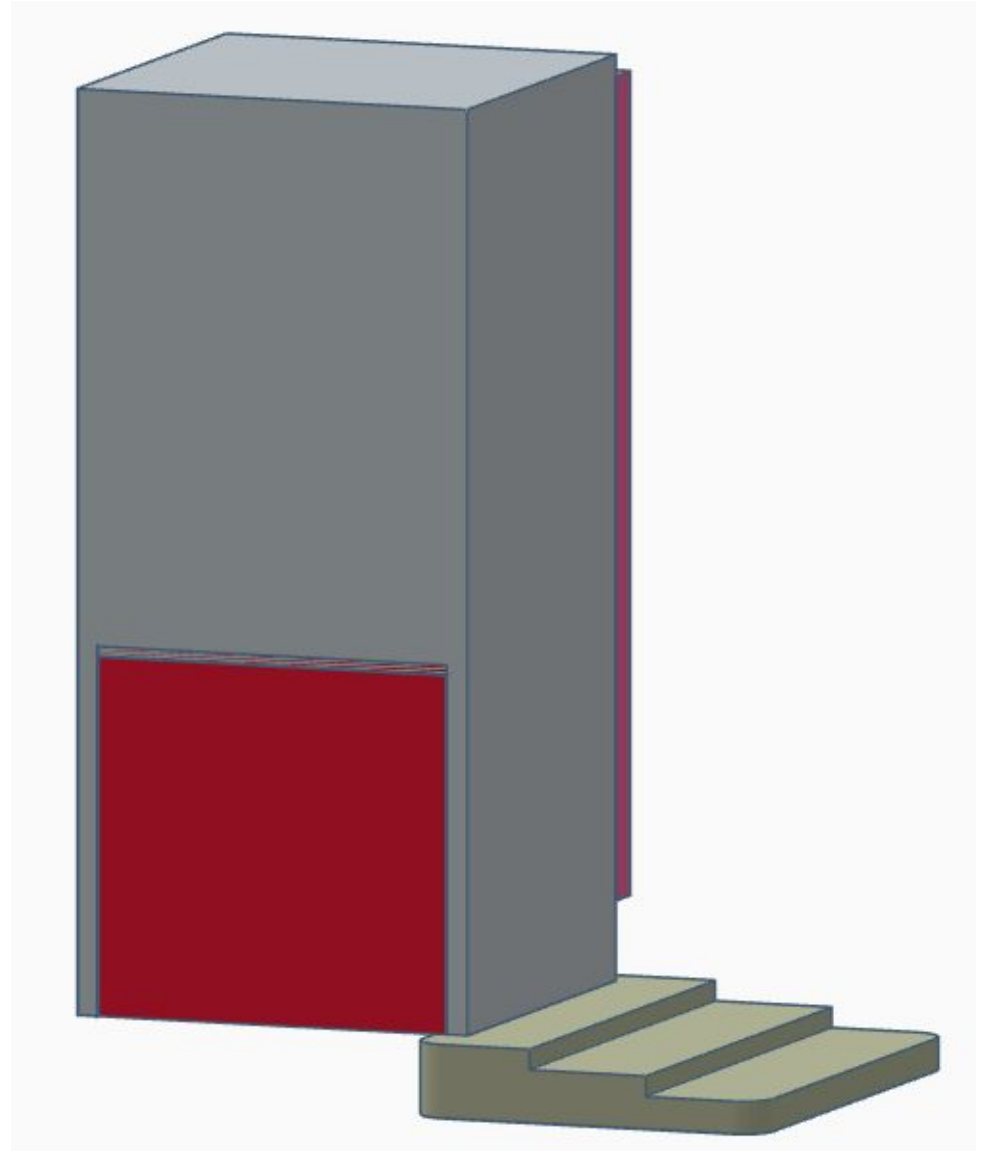
Line Interval / DPI / Line per cm

- Your module has a dot size of 0.08x0.08mm in size which equates to:
  - 0.08 Line Internal
  - 318 DPI
  - 125 Lines per cm
- For some materials, such as wood, engravings may provide a better appearance by lowering the values to account for collateral damage
  - 0.1 Line Interval
  - 254 DPI
  - 100 Lines per cm

Framing

- Your module does not have an external indicator for use during framing. Instead, use the laser dot itself. The beam will be visible through the front shield of the module.
  - Set to 1-5% power for framing
    - Some materials are very sensitive and may become marred by framing even with only 1% power
  - Be sure to disable any pointer offset previously used

Cleaning and Care

- To clean the lens cover, unscrew the air assist nozzle. Use rubbing alcohol and cotton swabs, or, lens cleaning swabs, to remove dirt and debris from the lens cover. **BE GENTLE**
  - If lens cover cannot be cleaned or is cracked, it needs to be replaced
- To replace the lens cover, insert a medium to large screwdriver into the tabs of the retaining ring and unscrew it. Replace the lens cover with a new one, and reinstall the retaining ring. **BE GENTLE**
- To access the side fans, remove the four screws from the rear of the module The outer cover will slide off.

Your module uses a 8mm lens cover glass. Replacements are available from TwoTrees (TTS-20/TTS-Pro 20) and other retailers