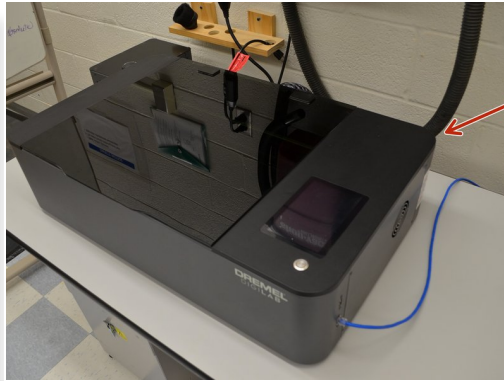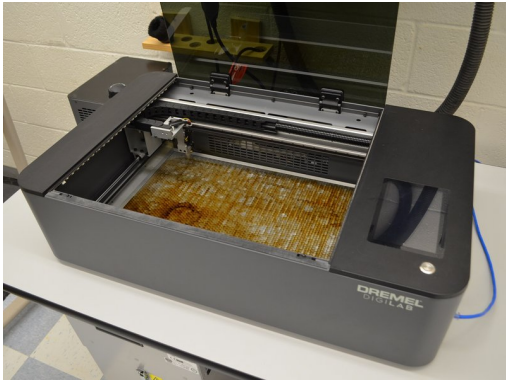# Basic Use of the Dremel Laser Cutter

This guide will explain the basic operation of the Dremel Laser cutter. It assumes that you already have a cut ready file.

Written By: Nathan Young

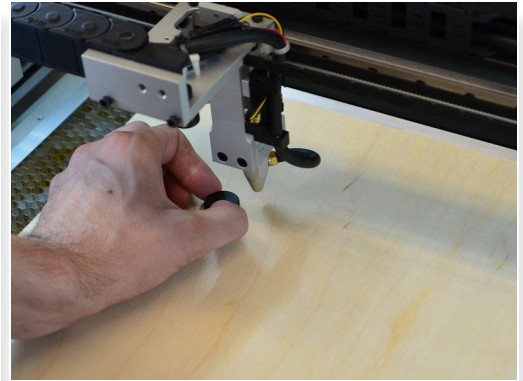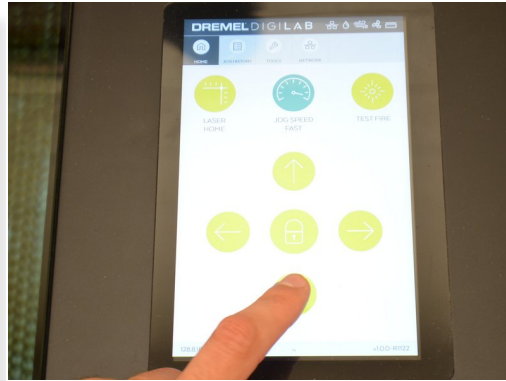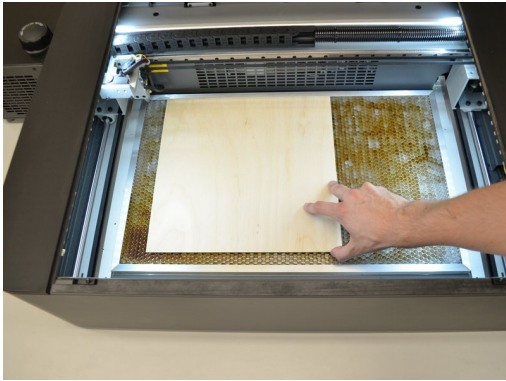This document was generated on 2022-07-21 06:59:06 AM (MST).

Step 1 — Turn on the Laser Cutter

⚠ Make sure that the bed is clear. The machine will home once it is turned on, and there is a possibility of the lens crashing into anything that left on the bed.

ⓘ The power switch is located in the back right of the machine.

● Turn the switch **ON**

ⓘ The machine will power up and home. Continue once the control screen comes up.

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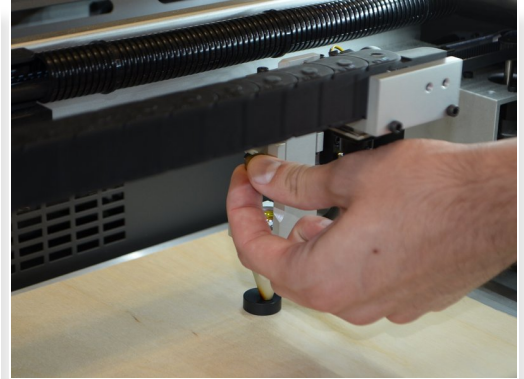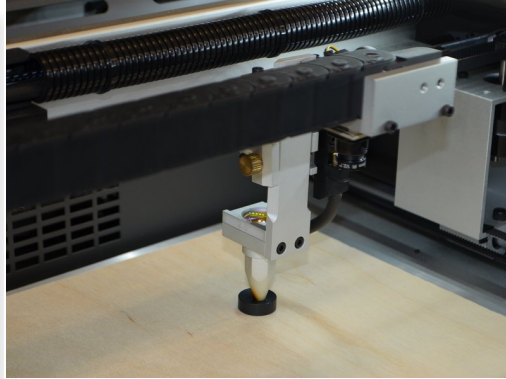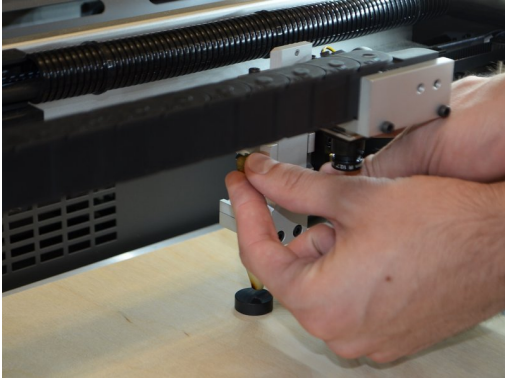
Step 2 — Prepare Material

- Place material flat on the bed.

- Use the **arrow keys** to position the **head assembly** above the **material**.

- Place the **focusing puck** near the head.

⚠ Make sure to not touch the **focusing lens**.

- Loosen the **thumbscrew** to the left of the **focusing lens**.

- Place the **focusing puck** between the **material** and the **head assembly**.

- Lower the **head assembly** onto the **focusing puck** and tighten the **thumbscrew**.

- Remove the **focusing puck** and return the **head assembly** to the desired home position.
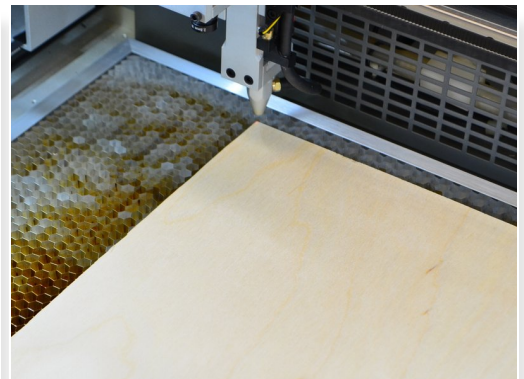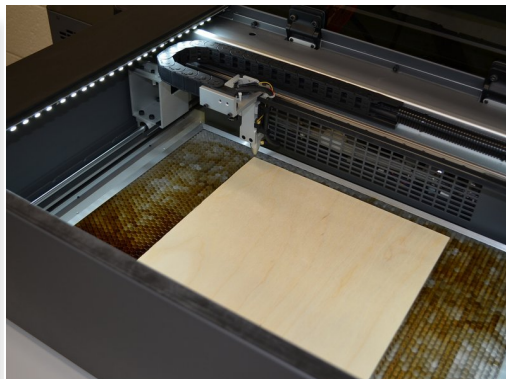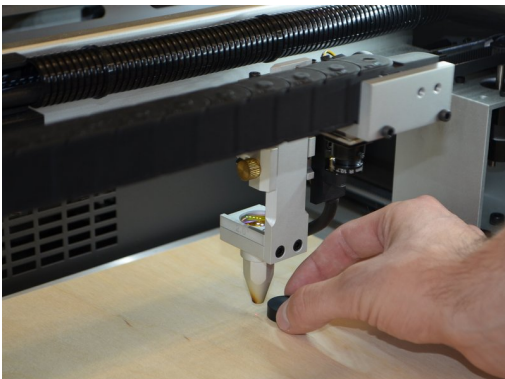
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Step 3 — Adjust Focus

⚠ Make sure to not touch the **focusing lens**.

- Loosen the **thumbscrew** to the left of the **focusing lens**.

- Place the **focusing puck** between the **material** and the **head assembly**.

- Lower the **head assembly** onto the **focusing puck** .
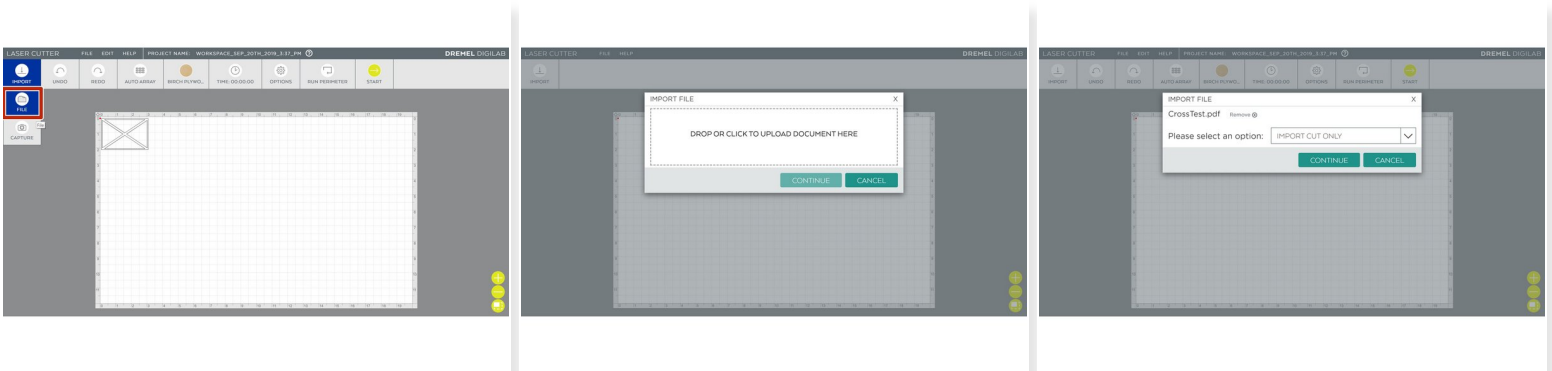
- Tighten the **thumbscrew**.

Step 4 — Set Zero

- Remove the **focusing puck**.

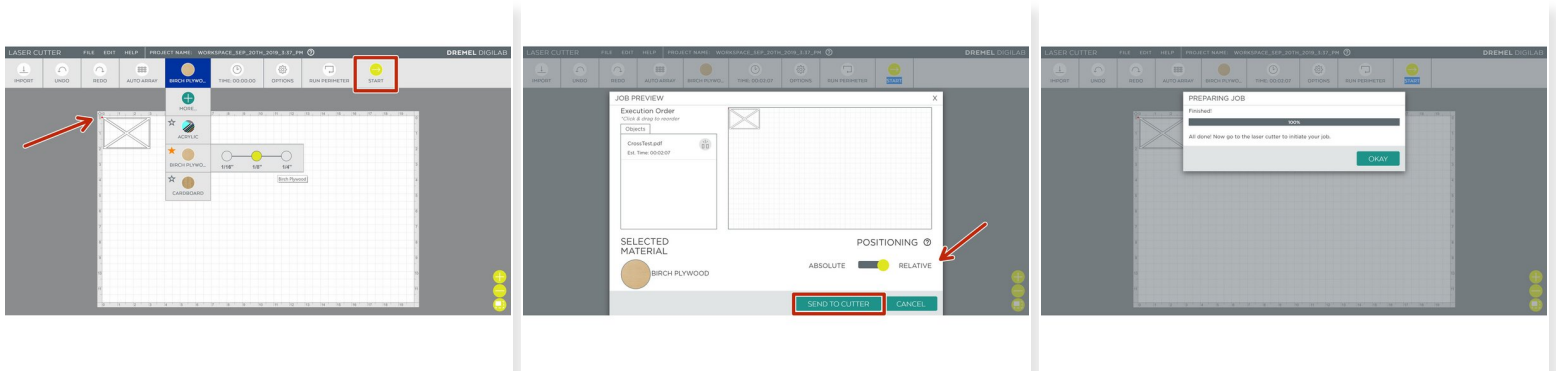- Use the **arrow keys** to move to the desired home position.

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Step 5 — Connect to the Laser Cutter

- For room 1201:
  - In a web broswer navigate to http://jmp1201lc.eng.umd.edu/

- For room 1120:
  - In a web browser navigate to http://jmp1120lc.eng.umd.edu/
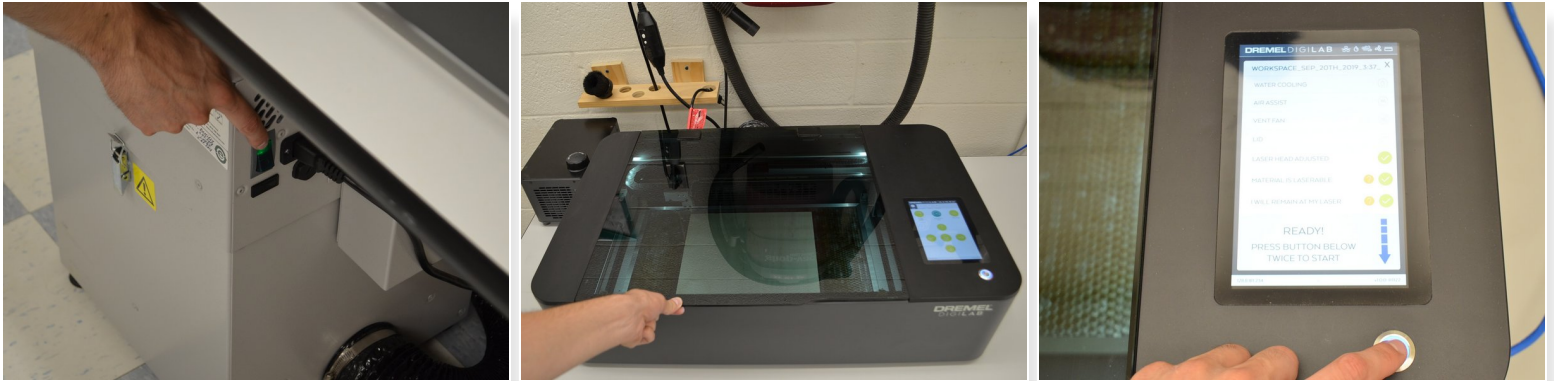
Step 6 — Import Cut File

- Select **Import** and **File**

- Click to upload file, select the PDF that you wish to cut.

- Select **Import Cut Only**, then **Continue**

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Step 7 — Adjust Cut Settings

⭐ Check the file is placed in the top left corner.

- Select the material **type** and **thickness**.

- Click **Start**.

⭐ Check that Positioning is set to **Relative**, and review the rest of your settings are correct.

- Click **Send to Cutter**.

- Click **Okay**.

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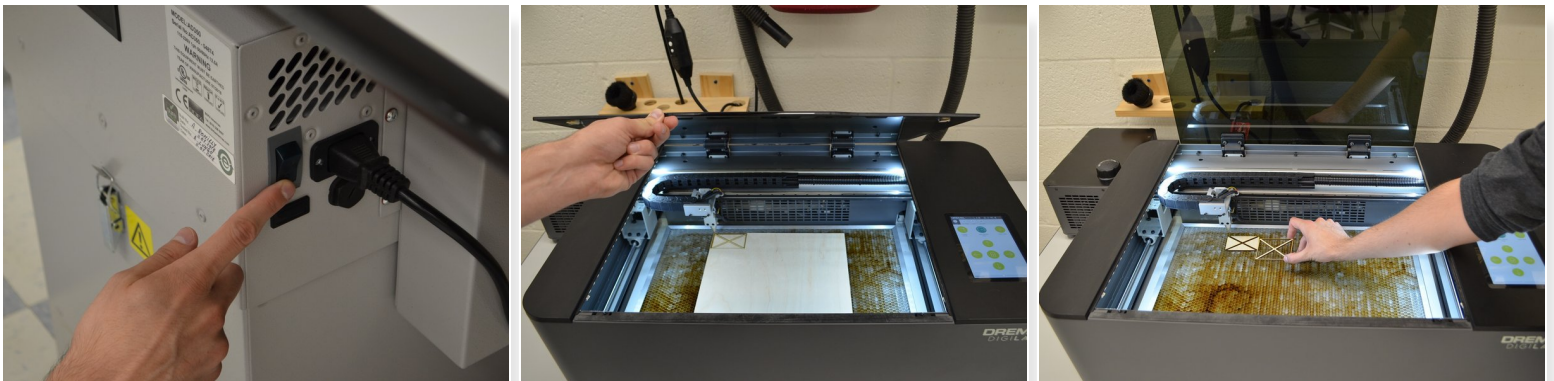
Step 8 — Running the Cut

- Turn on the exhaust.

⚠ Wait for the exhaust to come up to full power before continuing.

- Close the **lid**, make sure the icon shows it as closed.

- Follow the on screen prompts and select the check boxes.

- Double click the button to start the cut.

Step 9 — Finish Cut

- Once the cut is finished turn off the exhaust.

- Open the lid and remove the material.

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You have successfully cut your file on the Dremel Laser Cutter!