HOW TO USE THE MILLING MACHINE

The cnc machine is used to make clean and precise cuts on curves that are difficult to do manually.

STEP 1 You first turn on the machine by pressing the button on top. You next use the micrometer to measure in mm the block’s width, length and thickness record for later.
Milling Materials

- Wax
- Wood
- High density polyurethane foam
- Acrylic
- Mechanical plastics
- Non-ferrous metals (MDX-540 only)

**Step 2** Next you need to cut 2 sided tape and add it to the block. You will next place the block in the machine towards the middle of the x axis.
Calibration

- To calibrate the drill bit you need to go into VPanel and move it to the bottom left corner of the foam block by pressing on the positional buttons. You then need to click on the x/y button to save the origin. You can move the z axis down to see better to get a more precise origin make sure not to puncture the block.
Cutting setup

- you will now go into Imodela creator and select on the engrave cutting option.
- After you click it you will add the dimensions of the block that you measured.
Choosing a good image

- Finding the right image is important to getting a quality result. A good image has the following qualities:
  - Clearly defined edges/outline (No blurry or smooth gradients)
  - No small or intricate details that could be hard to detect
  - A solid color background (Transparency can throw off the detection algorithm)
Importing the Image

- You can search for “Clip Art ___________”
- Download and save the image somewhere you will remember
- In the iModela Creator, select "File" > "Import" and select your image
Extracting an outline

- Drag the "Alignment image density" slider until you have a clear, crisp outline of your image.
- Click on the "Extract Contour Lines" button, and do a final check that the outlines are correct.
- Click "Okay" to add the image outline.
- Finally, resize and move the outline to your desired position so that it’s as close to center as possible.
Preparing to CUT

- Press cut then update origin and make sure the material is correct
CUT