OMIO CNC OPERATION MANUAL
7407 Wired Boars

1. Machine Operation and Material Preparation

☐ Vacuum bed and materials surface before and in between cuts

☐ Turn on:

- ☐ Power Strip
- ☐ Water Jet
- ☐ Omio Itself
  - ☐ Ensure Omio flash-drive is plugged in

☐ Use appropriate router bit and collet

- 3/16” for most aluminum and polycarb cuts
- 1/8" for more detailed cuts
- 1/4" for larger or wood cuts

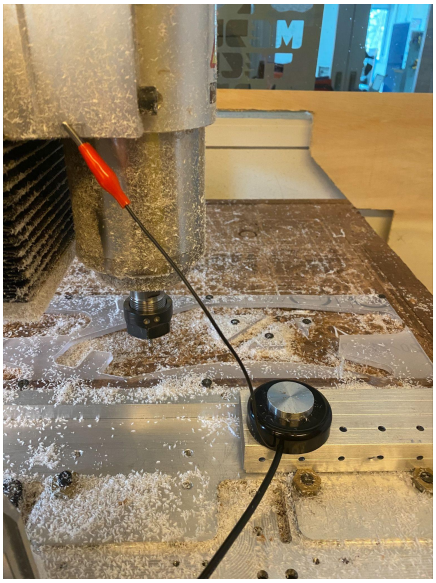
2. Tube Cuts

- Secure tube up against the screws at the end of the cutting area
- Tighten bolts along tube to secure it (using Allen key next to omio)

Use Edge Finder to Zero all axises Precisely

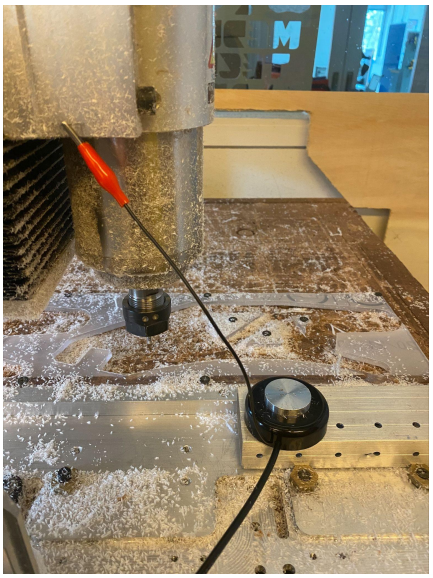
- For X & Y-axis;

- Connect one alligator clip to the metal on top of the collet connected to the drill bit.
- Connect the other end to the piece of metal being cut, be sure to not obstruct the path of the omio with connecting wire.



For Z-axis

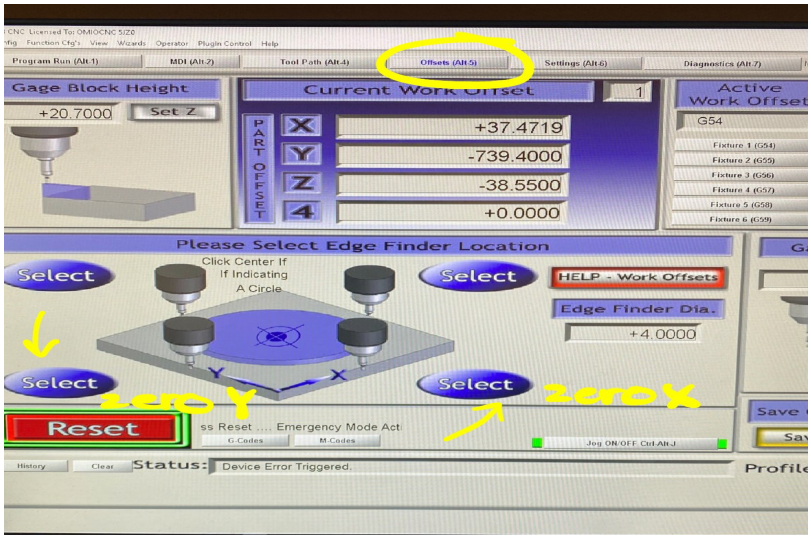
- Connect the small red clip atop the collet connected to the drill bit
- Place the circular metal plate atop the secured tube.



First Zero X&Y

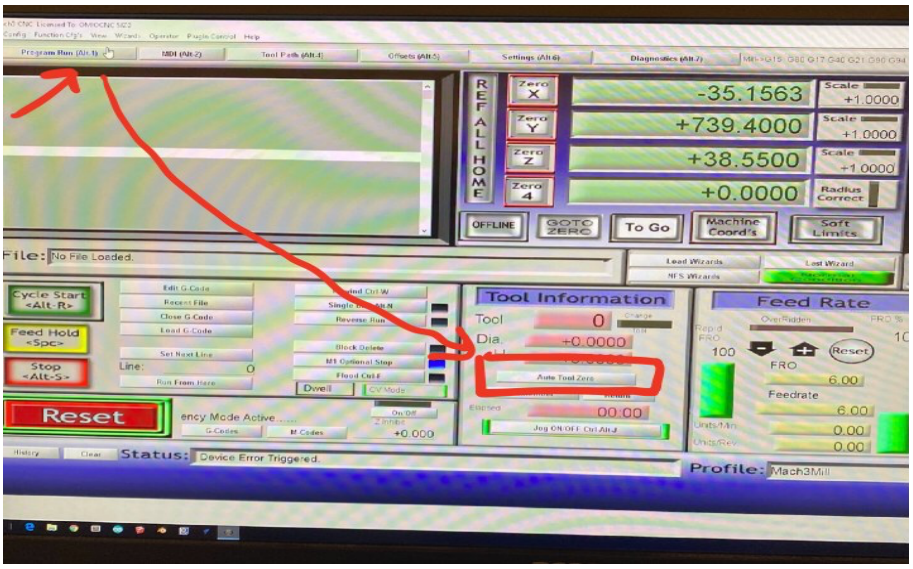
- Must Zero the *X against the y-axis* of tube and *Y against the X-axis* for Y.
    - On Mac3, open <u>Offsets</u> tab
    - Using the Remote, move the drill bit behind the piece being cut, so it doesn't scrap when moving to zero.
    - Select the bottom right button named “Selected” to zero X axis. (Be sure to zero X against the Y)

- Select the bottom Left button named “Select” to zero Y axis. (Again, be sure to do so against the X axis.)



Next Zero Z

- Disassemble clips and assemble clips for the X/Y axis.
- Once Ready to Zero Z, following steps above for edge finder; under **Program Run**, click “Auto Tool Zero " under **Tool Information.**



You may now check to see if your zeros are correct, and **LUBE MATERIAL** before beginning to cut the piece.

3. Flat Cuts

- Screw material onto Omio cutting area (Be sure not to screw into drill path or screws securing the bed)

Zeroing

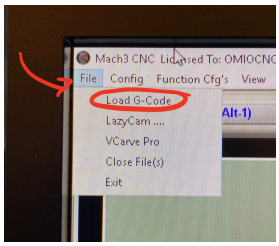
- Chose which sides are your x and y

- Ensure you have enough material for your CAM layout according to your chosen x and y
- Mark with sharp where you want your X & Y, then ensure it is inside of your screws securing the material.
- Using the remote, move drill bit to desired X & Y
    - on remote, utilize the 0.1mm and 0.01 mm settings.

- Select Zero X, or Zero Y on Program Runs.
- Zero Z using paper rule
    - Place a piece of paper atop the material and using the remote, bring down the drill bit until you cannot shuffle the paper anymore without scraping the paper a little.
- Select Zero Z in Program Runs
- **LUBE MATERIAL!!!!!**
- Ready to cut.

4. Programming and Making Cuts

- CAM your desired piece to be cut following the CAM how-to link
- CAM 101 PPT
- Using a flash drive, export CAM files
- Plug in drive in computer box below computer table
- Click “File; import Gcode”



- Check Tool path under tool path tab, ensure no screws will be hit.
- Start cut.