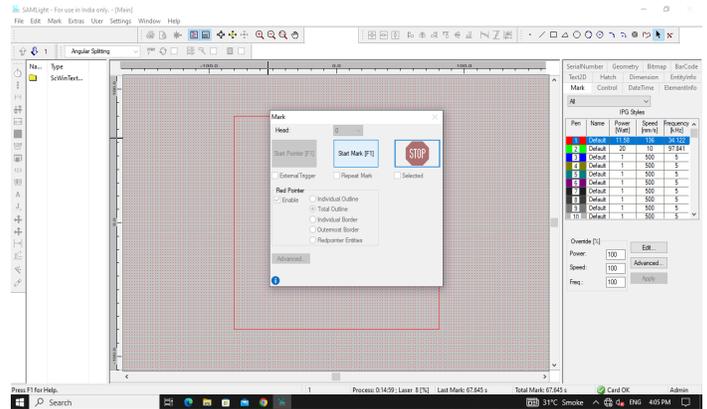
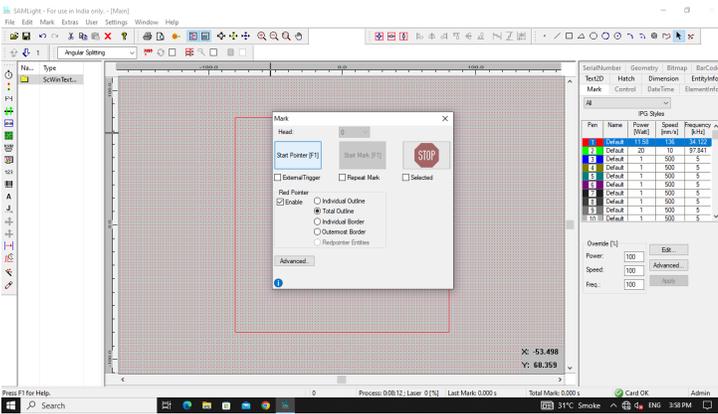
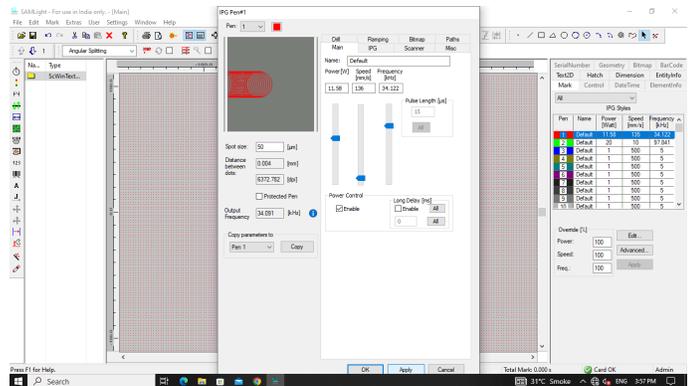
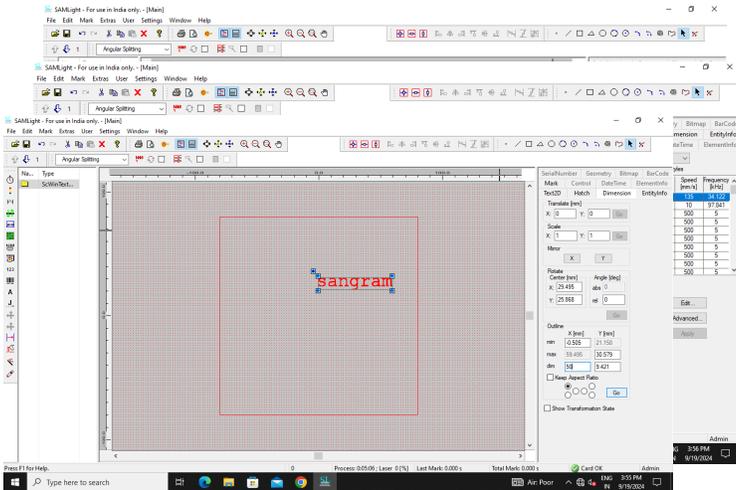


Fiber Laser Marking Machine

Step 1: Book the Srm-20 through the RIIDL Fab Lab machine booking portal at https://riidl.org/fablab/machine_book.



Fiber Laser Marking Machine

Step 2: Check the power cords and connections of the laser marking machine with computer, to make the connection correctly and reliably.

Step 3: Turn on the Power Switch of UPS and then machine and then start the software in sequence.

Step 4: Turn on the Laser switch by using key and Z axis access by button in sequence, Remove the lens cover.

Step 5: keep your files for marking in SAF,DXF,CMX,EMF,SVG,AI,MCL,TXT,BMP,CNC,TWAIN, PCX,JPG,GIF,PNG,TGA,TIF formats for process. Engraving of Alphanumeric text character, Logos, Serial Numbers, Incremental batch Numbers, Barcode 2D data Matrix on metals. All Standard window fonts & option for adding customized fonts, Mirror image, Auto Marking, Offset Marking etc.

Step 6: Machine supported Stainless Steel, Aluminum, copper etc.

Step 7:

- **Step 7a:** Import your design in software.
- **Step 6b:**
- **Step 6c:** Insert a cutting tool in a collet Tighten the set screw with hexagonal wrench.
- **Step 6d:** Mark the location and stick double sided tape.
- **Step 6e:** Click the [X/Yarrows] to set the origin of the bit. Carefully click the [Z arrow] and lower the bit until it is slightly touching to the surface of a board.
- **Step 6f:** Import your file to SRM-20 by clicking the [Cut] button.
- **Step 6g:** Click [Add] and select the [.rml] for the circuit's traces. When the [Output] button is pressed, the machine will begin to mill.
- **Step 6h:** When the milling is done, open the front door
- and remove the workpiece using spatula.
- **Step 6i:** Switch off the machine after the cutting operation and perform the cleaning of the machine.

Above all, the machine is under working condition.

Fiber Laser Marking Machine

Operation Procedure to Shut Down [Fiber Laser Marking Machine](#)

1. Turn off the Galvo and Laser button in sequence. Then press the Emergency button.
2. Close down all the software, then power off the computer.
3. Turn off the Power Switch.
4. Cover the lens.

Precautions of Fiber Laser Marking Machine

1. Make sure the correct voltage and frequency.
2. Strictly pay attention to the switch machine in sequence at any time. Turn on the computer, Galvo and Laser button in sequence, or it will cause damage due to the uncontrollable laser beam.
3. Ensure that the diameter of the optical fiber laser wire is greater than 300mm in use or in transit. Seriously bending may break the fiber laser wire, or the fiber laser marking machine cannot work properly.
4. Please find the focus length before start processing. Move the laser head up and down in continuous processing mode, stop when marking light intensity.
5. Don't Force shut down the computer while software still on.

Don't connect the Internet to upgrade the system automatically.

Make the machine computer turn on and off normally. Otherwise, the software file is easy to be lost or damaged and the system cannot work.

Fiber Laser Marking Machine

Step 7: Milling will commence once the file is successfully loaded. Monitor the Milling process until completion.

Note:

- **Follow all safety protocols and guidelines provided by RIIDL Fab Lab staff.**
- **Ensure the 3D printer is operated in accordance with manufacturer instructions.**
- **Clean up your workspace after use and adhere to any additional guidelines provided by RIIDL Fab Lab staff.**

Additional Notes:

1. If any file exceeds 8 hours of Milling time, it must be discussed with Pranav Gawde or Sachin Khot beforehand.
2. Ensure that all three axes (X, Y, and Z) are homed properly before initiating the print job.

These additional notes are crucial for maintaining Milling quality, safety, and efficient usage of the Srm-20 at RIIDL.