UV

On this machine we are using `UV marking` techine.

Difference between

- What is difference between UV and fiber lasers: `Fiber lasers` use glass fibers to boost the laser beam, making them really good for cutting or marking materials because they're super precise and efficient. `UV lasers`, on the other hand, use ultraviolet light, which is great for working on very tiny or delicate stuff without causing damage, like engraving on glass or plastic.
  So, fiber lasers are like powerful, focused light pencils for tough jobs, while UV lasers are more like ***fine, gentle brushes for detailed artwork***.

> Password: `solferino5` (for the software)

BUttons pannels

- `Machine On/Off` - swithes the machine power.
- `Light On/Off` - switches the light inside the marking panel.
- `Request access` - allows to open the doors during the production.
- `std-by off/on` - standby on/off. Brings electricity to the laser sources.
- `Manual/Auto service` - by default, we will use it on **Service** mode.a
- `Enable Jog` - turns on the joystick.

Clipper

When the software is oppened, it has to warm up a little bit. If the file is allready set up, only this software is needed in the production.

- First, it will show *Initialize Axis*. Press `YES`;
- Next `Manual Management` on the left navigation bar.
- Then do the actions and execute them.
- If there is an error, then push the `RESET` refresh the custom software.
-

> **Focal values**
> `254` - plastic, **160x160 mm** marking area, lens height: **341 mm**
> `100` - glass: **70x70 mm** marking area, lens height: **177 mm**.

FLYCAD

Parameters settings

- **Max speed of the mirrors**: 3000 (but that it will ruing the quality):
  `Default`: *1000 ms (1 second).*
  `Recomended`: *1500.*
- **Frequecy**: frequency of emitation of a single pusle. **Default: 50 kHz**

Engraving pipeline

- `ctrl + f` find focus distance
- `ctrl + a` test marking area
- `f5` start marking

Steps:

1. Import shape.
2. Import image.
3. Create `Sketch`.
4. `Link sketch` to the image.
5. Do `hatcing`.
6. Check if scale for the hatching scale is properly set up.
7. Calibrate the position of the laser .
8. check the length between the Lens and target object:
   - for glass the distance should be `177 mm`;
   - for glass the distance should be `341 mm`
9. Close and lock the `inspection` door.
10. Close the `pneomatic side` doors.
11. Press `F5` on `FlyCAD` software to start marking proccess.