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# 1. OBJECTIVE

The objective of this workshop is to teach you how to use the vinyl cutter in a safe way and without damaging the machine.

The objective is NOT to show you all off the functionalities of the machine, but rather to give you a starting point from where you can start testing the possibilities on your own.

# 2. INTRODUCTION AND MATERIALS

Our vinyl cutter is a Roland CAMM-1 Servo GX-24.

This is a knife plotter that can cut 2D foil with a small knife, much like a letter draws lines with a pen. This is ideal for lettering and forms cut out of sticker foil.

We can cut window/sticker vinyl, iron on flock and selfadhesive copper foil.

- Software: Roland Cutstudio

Filetypes :

AI(versie 8), DXF, DWG(2004), SVG, EPS, JPG, PNG

- The working size is 600 mm max width and 1800 mm max length. We have rolls of material in 2 widths: 500 and 600mm. A4 sticker sheets are also available.

## WHAT NOT TO CUT!!!

The lab has several materials in stock.

You are allowed to bring your own material to cut, but not all materials are allowed or possible. All materials must have a backing. If they don't you will cut into the machine.

**Please take note: A new knife costs 30 euro. Treat the machine with care. If you are not sure, ask advice from a lab supervisor.**

# 3. Preparation drawing

Important:

- Everything you want to cut has to be a vector outline.
- Make sure there are no guides left in your file. They might cause your file to not get imported properly.

## 4. WORKFLOW

### 4.1. Preparation

1. Put you file on the server:

- Go to Network places on the pc.
- Go to FabLab on 192.168.88.201
- Log in with the username pro and password pro
- Make a folder in 001\_USERS with your own name.  
In this folder you can store your files.

### 4.2. On the vinylcutter

Press the handle in the back (left) down, this enables you to load a new material.

Put the vinyl through the back of the machine and align it with the length ridges in the front.

See if there is an already cut piece that fits your needs, use this instead of a complete new roll (Be more efficient)

Make sure the 2 guide wheels are under the white markers.

Pull the handle in the back up again, this locks the material in place.

Press ENTER or turn the machine on using the power button.

The machine will ask: SELECT SHEET: ROLL, EDGE of PIECE

Choose ROLL if you are working with a roll.

Choose PIECE if you are working with a cut off piece.

Press ENTER to let the machine start scanning.

The cutting head will now measure the usable surface between the guiding wheels and will show the values W and L in the window. (If you have selected ROLL You will only see W, the length can always be adjusted in Cutstudio)

### 4.3. A small test

If you want to test a certain material you can press the TEST button for a second.

The cutter will now cut a small test pattern shaped like a square inside a circle.

Now hold the downwards arrow button pressed to mode the cinyl forwards.

If it is possible to take of the circle with a pair of tweasers, and the square stays, your settings are ok.

If the square comes off as well, then the knife pressure is wrong and you should ask for advice from a lab supervisor.

### 4.4. Entering the cutter settings

(These steps are only necessary if you want a custom home position, the default home is in the left bottom corner.)

Use the arrow buttons to osition the cutting head at the start point of the material.

Kepp ORIGIN pressed in for a second.

### 4.5. Cutting the vinyl

After setting the cutter the scen will show the settings for speed and knife pressure.

Now go back to the PC and go to Roland Cutstudio.

Press File --> cutting setup --> properties ->get from machine --> ok --> ok

The virtual page on your screen will now take the dimensions of the material.

Now import your file.

You can now scale or move your file untill it has the desired measurements and position.

Now press Cutting (the machine will start directly after this command so make sure there is nothing under or in front of the machine that can hinder the process of cutting.)

Panic? press PAUSE and the machine will stop emmediately, press RESET to restart, or press PAUSE again to continue.



