



Vilniaus dailės akademija
Meno ir dizaino laboratorija

DESIGN LABORATORY

WORK RULES

LASER ENGRAVER

Approved:
2018 - 05 - 14
According to Rector's Order No.VĮU- 40

LASER is the acronym for *Light Amplification by Stimulated Emission of Radiation*. A CO₂ laser works by electrically stimulating the molecules within a carbon dioxide gas mixture. When focused through a lens, this highly-intense and invisible beam will vaporize many materials. Depending on the speed and intensity of the projected beam, a CO₂ laser may be used to engrave or cut through a wide variety of materials.

1. Prior to operation, thoroughly read and familiarize yourself with the warning labels located on both laser system and in this rules.
2. Always wear safety goggles when the laser system is in operation. Reflective materials such as mirrors, enameled brass and anodized aluminium may reflect some of the invisible laser radiation. Severe eye damage may occur if proper safety goggles are not worn.
3. The Design Laboratory is available to the whole community of Vilnius Art Academy who have attended the first aid, labour and fire safety courses, are familiar with the health and safety instructions of the equipment and have signed in the health and safety instruction log.
4. Work safety courses are held in the beginning of autumn and spring semesters.
5. Working hours of the Design Laboratory:
From 8:00 till 17:00* (*Fridays 8:00 till 16:00)
Lunch time from 12:15 till 13:00.
6. No more than 5 students are allowed to work in the laser engraver room at one time.
7. To get access to the laboratory students will need to register in advance, i.e. to register in the Registration forms by specifying desired time from-to.
8. According to rector's Order No. VĮ-43 (ūk) regarding the use of the laboratory during **non-working hours**, the student or employee must **have a written permission from the head of that laboratory**.
9. **You may reserve no more than 4 hours to work with the laser cutter.**
10. Preparing digital files and materials for work:

- a) Drawing must be prepared with CorelDRAW;
- b) Thickness of the lines must be no thicker than 0,1 mm;
- c) Drawing and material size should not exceed (960 x 610) mm;
- d) Height of the materials cannot exceed 160 mm.

11. Basic rules of safety:

- a) Always work with functioning compressor and fume extractor system;
- b) Never leave the machine unattended during the laser cutting and engraving process to prevent fire;
- c) Always wear safety goggles when observing the laser system in operation;
- d) Do not look into the laser beam – it is harmful to health and vision;
- e) Do not open the laser access panel when the machine is working;
- f) Do not attempt to modify or disassemble the laser module, only a certified specialist may do so;
- g) Do not laser cut or engrave heat-sensitive surfaces or materials that may generate toxic fumes, such as PVC and Teflon.

12. Tools issued by the laboratory employees to carry out the work process, must remain on the premises of the laboratory, and must be returned to the manager after completing the work.

13. Each student will be personally responsible for the tools made available to him.

14. Community of the Academy working in the laboratory are required to maintain cleanliness, conserve electricity, preserve and maintain laboratory equipment.

15. Users of the laser engraver provide their own materials.

16. Everyone working in the laboratory is required to strictly follow safety requirements.

17. Should you have any questions you may contact the laboratory personnel, who will always help.

18. Food and drink are forbidden in the laser engraver room.

19. Smoking in the laser engraver room is strictly prohibited.

20. It is forbidden to use MP3 players and other audio equipment in the laser engraver room.

21. Persons intoxicated with psychotropic substances and alcohol will not be allowed into the laboratory.

22. If you violate these rules three times you will not be allowed to use the laser engraver.