



Aalto University
Design Factory



112



Design Factory Safety

Introductions and manual

Version 04.10.2022



Kalevi Ekman **+358 50 555 3566**

Shreyasi Kar +358 44 915 8962

Vesa Saarijärvi +358 50 525 0273 (in Finnish)

Aalto HELP +358 50 4646462

Table of Content

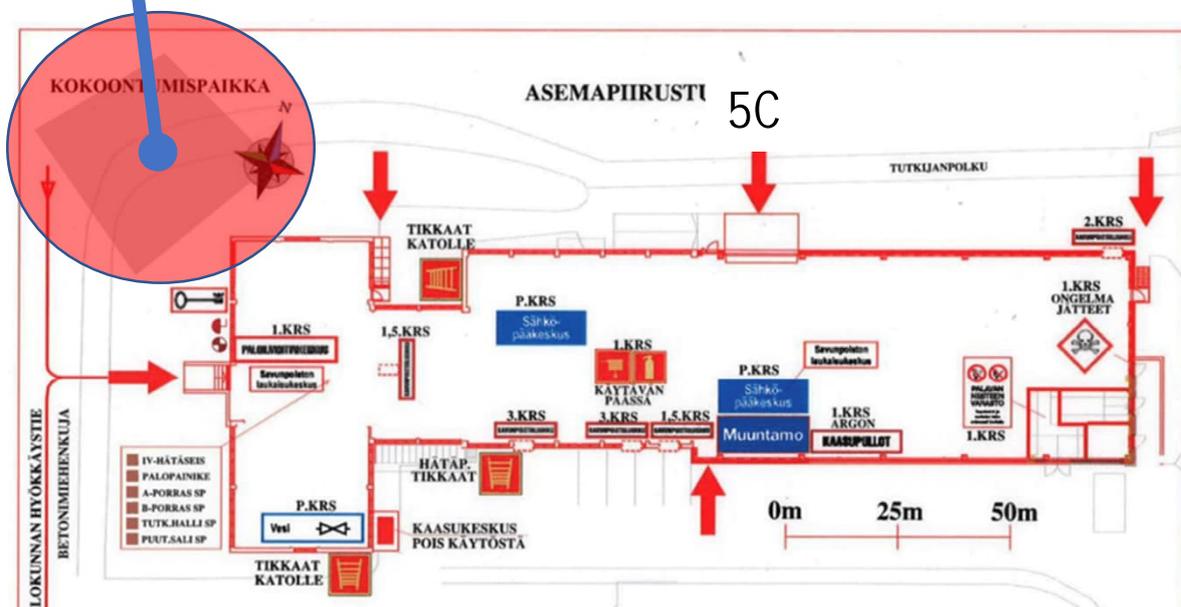
1. In case of emergency : CALL 112
 - stay calm and do not panic
 - learn the instructions now; there will be no time in an emergency situation
2. Aalto HELP
3. Safety in general
 - safety as a discipline
 - areas of safety
 - mark your stuff
 - order and cleanliness
4. Safety gear
5. Machines and tools
6. Workshops
 - Machine Shop
 - Electro Shop
 - Bunker
 - Paintshop
 - AC/DC
 - Cage
7. Storing your stuff

ATTACHMENT: Materials

1. In case of emergency CALL 112

- ANALYZE (what happened, is it safe to do something, or should you leave immediately)
- CHECK (if someone is hurt; is she conscious)
- ACT (save lives or reduce damage)
 - ✓ Use fire extinguisher
 - ✓ Help injured people
 - ✓ Cut off electricity
 - ✓ Close doors if fire
 - ✓ Warn others about danger
- **CALL 112** (explain what has happened, don't close the line)
- ADDRESS is Betonimiehenkuja 5 C (main entrance)
- WAIT until helpers come
- GUIDE (ambulance, fire brigade)

In case of **GENERAL ALARM**, leave the building immediately, go to evacuation area and stay there until you get permission to leave.



2. Aalto HELP – cases of no emergency

- 24/7 service call
- ask help for any kind of situations
- give notice when you have observed something suspicious (water leakage, smoke, electricity hazard, intimidating behavior or such like)
- 050 4646462

3. Safety in general

Safe way of working is not an act, it is behavior. Every member of Design Factory must continuously pay attention to their own and others actions. The general rules of safety must be followed by everyone and every time, no matter how experienced or unexperienced the actor might be.

- Never work alone with machines, chemicals, and electricity after office hours – doing regular homework or meetings is ok at any times
- Always use protective gear (for eye or ear, helmet, jacket, gloves, according to your work)
- Never try a machine that is unfamiliar to you
- Learn to know DF and its staff
- Help us to keep DF clean and in order
- Always mark your stuff clearly
- Do not leave any doors or windows open (or blocked)
- Do not let any unauthorized person to enter

PDP is the biggest course of DF. Therefore it's important that all teams have a trained safety officer, who ensures that all team members are aware and respect the above mentioned rules. For project planning and risk management it's also good to remember the various fields of safety

- Safety with machines
- Electrical safety
- Chemical safety
- Fire safety
- Safety in traffic
- IT and confidentiality
- Mental safety



*Energizing food and breaks
help you to stay focused*

4. Safety gear

Design Factory provides protective gears for everyone, who works at the workshops (students, staff, company partners). If you don't find something from the Bunker lockers, contact the staff. Most commonly needed are

- earplugs, protectors
- goggles
- jackets
- gloves
- gas masks, respirators
- paint coveralls
- helmets
- safety shoes



Aimane is well prepared.

Wearing of safety gear should be taken most seriously. You must not only follow the instructions by yourself, but also proactively help others to keep those instructions in mind. It takes less than a second to permanently harm your eyesight!



Bad procedures may endanger your domesticity.

5. Machines and tools

The machines, tools, and technologies of DF are divided in three classes.

a) Can be used by authorized users only^(*)

- CNC machine tools
- hydraulic platform car
- circular saw (table saw)
- water jet cutting machine

b) Can be used by accomplished user

- welding machines
- plotters, printers, vinyl cutters
- low voltage technology

c) Can be used by anyone

- hand tools
- electric tools
- pillar drilling and routing machines
- water soluble paints in paint shop
- band saws and grinders in wood shop

(* Authorized user is a person, who has her/his name on the list of authorized users. The list is kept visible close to those machines and can be updated by Vesa Saarijärvi, Simon Andsten or Kalevi Ekman only.

6. Workshops / who to approach



Machine Shop (MS)/Team MS^()*



Bunker/Team MS



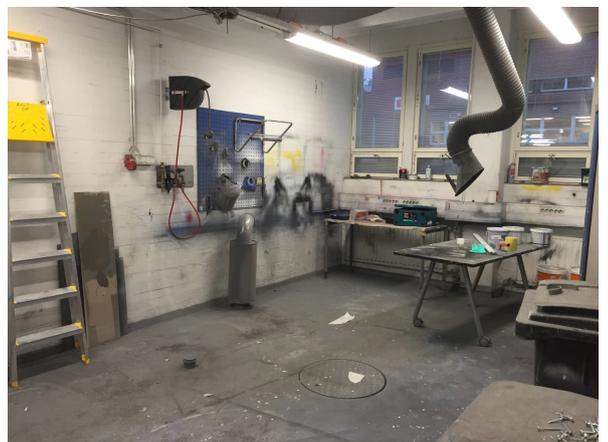
Electro Shop/Kar, Haakana



Print Shop/Laiho, Passi, Packalen



Wood Shop/Team MS



Paint Shop/Team MS

^(*)Team MachineShop: Saarijärvi, Andsten, Haverinen and Uitto



Cage/Team MS

The circular saw is one of the most dangerous machines of DF – should be used by authorized users only. Indicate your interest for using it proactively, you must be trained by personnel!

7. Storing your stuff

Design Factory has limited storage space. Use it wisely!

- a) First choice is always the Public Storage (close to Lobby desk)
- b) Large course related prototypes under construction can be temporarily placed into Bunker, Lobby, or Cage with permission given by staff
- c) In very special cases, contact Team Machine Shop or the Captain of DF

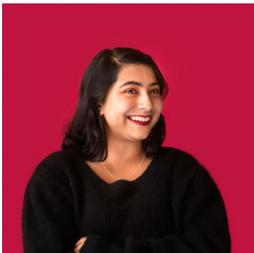
Whatever is stored at DF, must always be marked clearly. Marking labels are available, and they must be filled with care.

MATERIALS

how to find stuff at Design Factory

DF policies and ways of working

- materials, components and stuff that you find from DF, can be freely used for school projects
- therefore, unfinished work (prototypes etc) that is still valid or belongs to someone, should always be clearly marked
- always pay attention to economy and recycling, avoid wasting
- if you are not sure, always contact the staff and ask
- be proactive, and allow some time for processing your requests
- particularly, if you plan for working at late hours, or over the weekend, make sure that you know how to find stuff
- we have also items that can be borrowed from the Lobby shifter (cameras, tripods, a trailer etc)
- Key contacts of Machine Shop: Vesku and Simon
- Key contacts of Electroshop: Shreyasi and Teemu
- Key contacts of Printshop: Erwin and Sushant
- Questions about space and infra: Shreyasi and George
- Jacks of all trades: Klaus and Joel



Shreyasi



Vesku



Simon



Erwin



George



Klaus-Joel



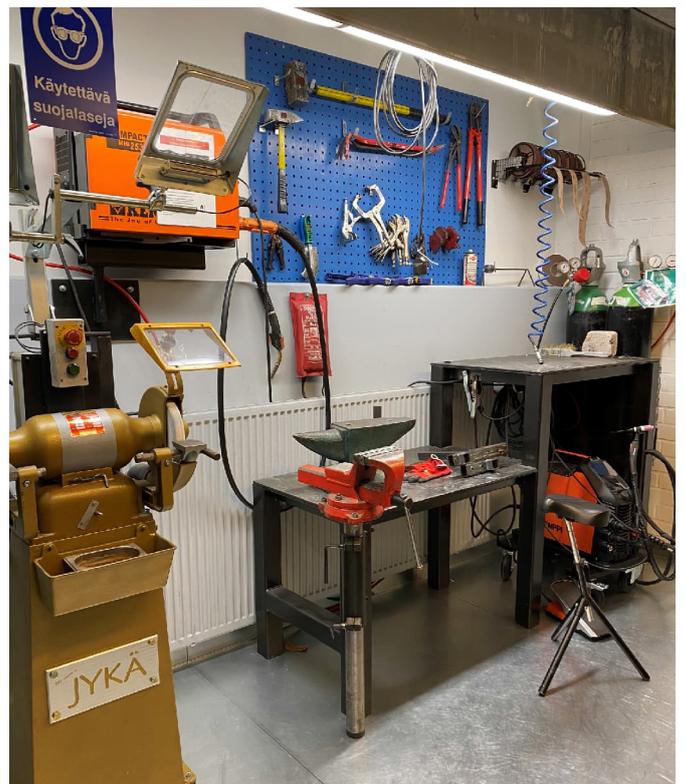
Teemu



Sushant



In Machine Shop we have technologies to cut your material into pieces, and to join the pieces for one again. From left upper corner Protomax water jet, HAAS VF 2SS milling machine, metal cutting saw and Kemppi Mig and Tig welding machines. In addition there are e.g. spot welding and grinding machines.





In the Lobby there are Kits for workshops and brainstorming. Feel free to use them for inspiration or quick-and-dirty prototyping. The content is checked and refueled every now and then, but they may all be different anyway.

IT Storage is normally always locked, but you can ask the Lobby shifter to open the door. Cables, adapters, extension cords, actuators, pneumatics stuff – perfect match to your needs if you are lucky. But asking staff first may save time.





Copyroom is for scanning, printing, laminating and cutting your stuff. Copy papers A4 and A3 should always be available there.



By asking the staff, you can have access to the storage of post-its, tape, markers, legos etc



The Bunker at the basement floor is meant for all kind of building, testing and exploring of products and prototypes. Surrounded by small woodshop and paint shop, it has tools, battery powered tools, protective gear and jackets available.

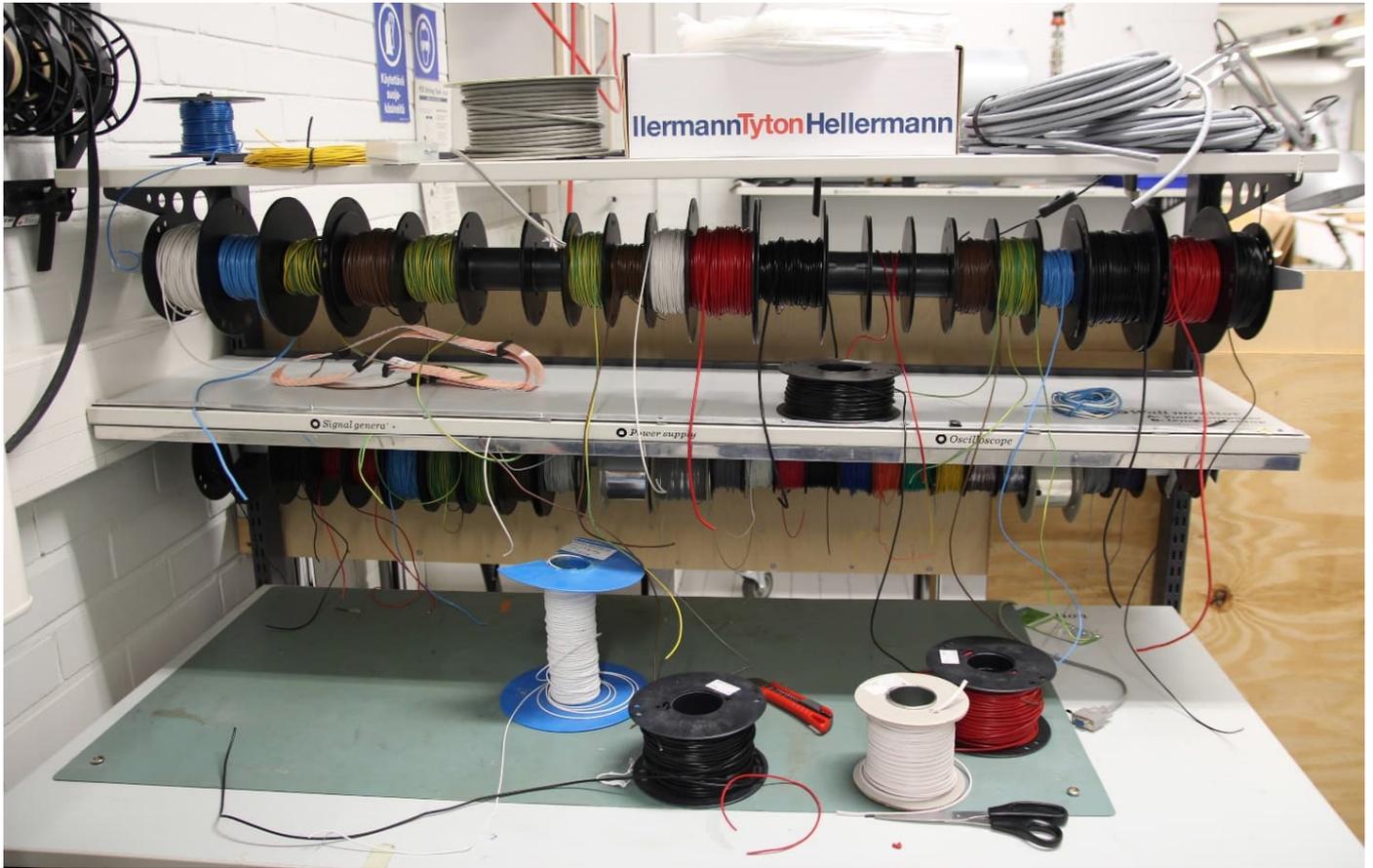
Look for screws, bolts and nuts from the cart, the lockers include tapes and cable ties – at the end wall of AC/DC-room there are more Würth boxes for small components e.g. springs, o-rings, locking pin etc.





Supply Cave entrance is directly from the Bunker. Usually, you'll find cardboard, Kapa-sheets, foam, plywood, textiles – and there is also a small collection of random stuff e.g. remains from previous projects, components that someone has donated etc.





A view to the AC/DC room. We have also the etching system for your own circuit boards.





The Cage. Limited assortment of timber and plywood is available. For any larger needs always consult the staff.

When using the machines of Cage, do not forget to turn on the dust collection (the timer on the backend wall).

DANGER: the circular saw shall be used by authorized people only! If you want to receive such an authorization, contact staff in advance and we'll take care of your training.



This blue box is for abandoned elec devices and scrap only. Feel free to pick anything for your needs 😊

Every team and every team member should be aware of waste management and recycling at DF. Aalto has a contract cleaning company. However, If the recycling/waste boxes inside the building get full during the day, it's the user's responsibility to make space. Please take those fractions out and place them in the right collection box at the back end of our yard. Particularly biowaste should not be left behind over the weekend time! Note the difference between plastic, metal, glass, paper, cardboard, bio and mixed waste. [We also collect batteries, illuminators, and chemicals - consult the staff!]



-the end -