



New Design Factory Safety

Introductions and manual

Version 15.06.2023



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. **DF Lab Workshops**
 - Machine Shop
 - Print Shop
 - Electro Shop
 - Bunker
 - Paintshop
 - Woodshop

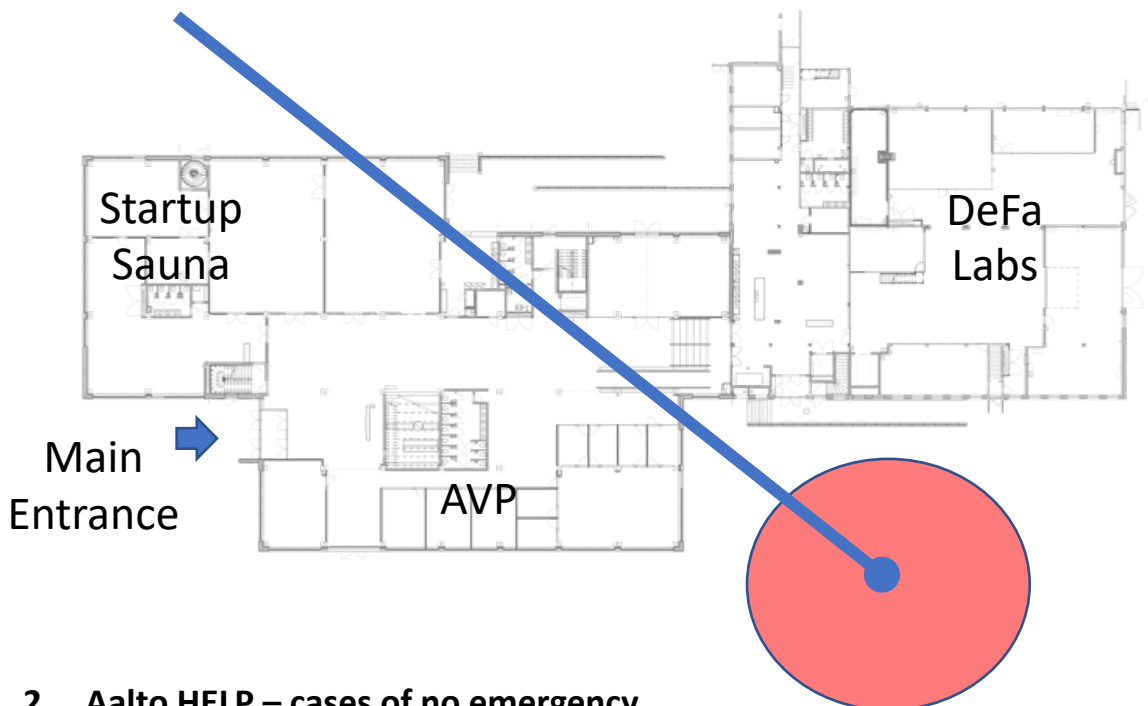
7. **Storing your stuff**

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 Puumiehenkuja 5 A (main entrance)
- **WAIT** until helpers come
- **GUIDE** (ambulance, fire brigade)

In case of **GENERAL ALARM**, leave the building immediately, go to the 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 a 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 eyes or ears, 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 of 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 gear for everyone who works at the workshops (students, staff, company partners). If you don't find something from the Lab or 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.

The 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 into three classes.

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

- CNC machine tools
- hydraulic platform car (“Rissanen”)
- circular saw (table saw)
- water jet cutting machine
- 3D printers: Fuse, Ultimaker
- laser cutting: Epilog
- hydraulic press brake
- electric sheet metal shearing machine

b) Can be used by accomplished users

- welding machines
- other 3D printers
- plotters, printers, vinyl cutters
- low voltage lab

c) Can be used by anyone

- hand tools
- electric tools
- pillar drilling and routing machines
- manual sheet metal tools
- 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. The ADF Lab and Workshops / who to approach



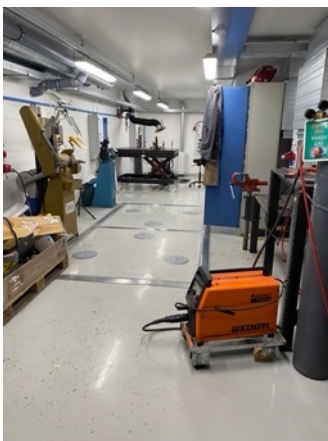
Machine Shop (MS)/1.floor/Team MS^{*}

Bunker/Team MS



Electro Shop/1.floor/Xie, Ronkka

Print Shop/1.floor/Laiho, Passi



Welding Shop/1.floor/Team MS

**Paint Shop/Bunker floor/Team MS
(always ventilation on and off!!!)**

(*Team MachineShop: Saarijärvi, Andsten, Kääriäinen and Uitto)

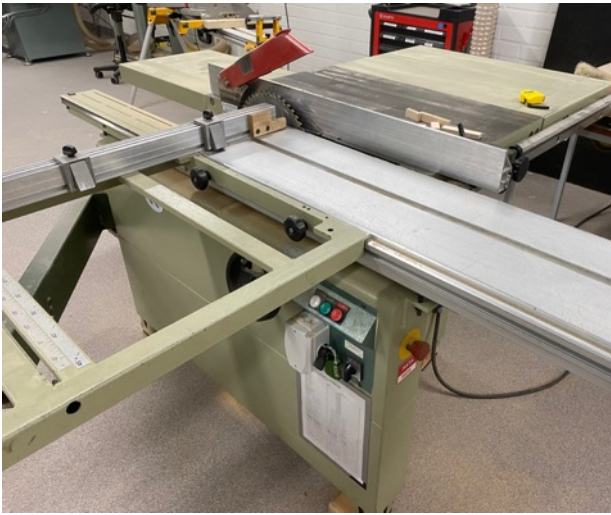


Table saw is dangerous (left). Mitre saw (right) is less dangerous. Notice: even when using ventilation or dust collection, some dust cumulates. Use vacuum cleaner or brush!



Woodshop/Team MS

You must turn on/off the ventilation! Notice there's a delay.

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/checked by personnel! Only registered users are allowed to operate it.

7. Storing your stuff

Design Factory has limited storage space. Use it wisely!

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

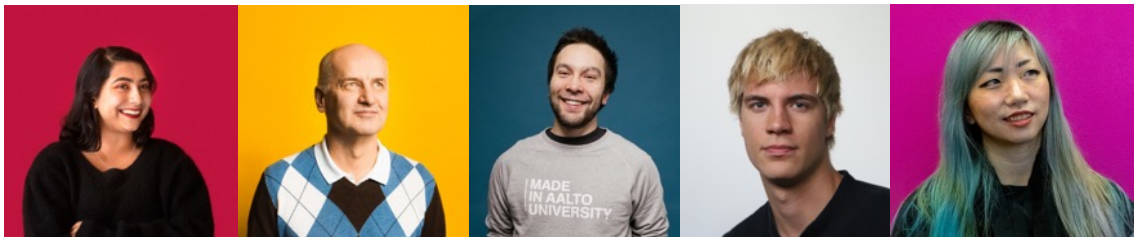
Whatever is stored at DF must always be marked clearly. Marking labels are available, and they must be filled with care.

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 also have items that can be borrowed with the help by the Lobby shifter (cameras, tripods, a trailer etc.)
- Key contacts of Machine Shop: Vesku, Simon, Kari
- Key contacts of Electroshop: Jasmine, Teemu and Shreyasi
- Key contacts of Printshop: Erwin and Sushant
- Questions about space and infra: Shreyasi and George
- Jack of all trades: Klaus



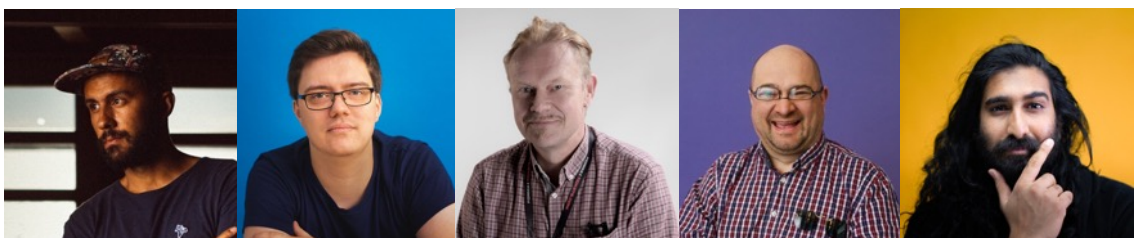
Shreyasi

Vesku

Simon

Erwin

Jasmin



George

Klaus

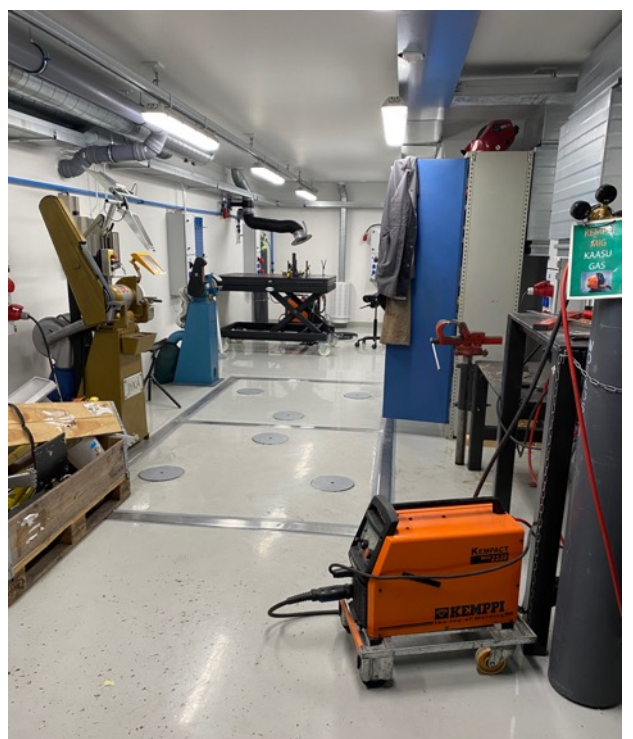
Kari

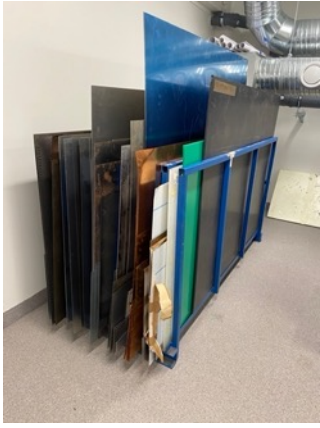
Teemu

Sushant



In Machine Shop we have technologies to cut your material into pieces, and to join the pieces into one again. From up left to down right: Protomax water jet, CNC machine tools, metal cutting saw and Kemppi Mig and Tig welding machines. In addition there are e.g. spot welding and grinding machines.





Bunker level has several material storages, both hard and soft.



We also have a random collection of items and remains from previous projects. Cables, adapters, extension cords, actuators, pneumatics stuff – perfect match to your needs if you are lucky. But asking staff first may save time.

For temporary storing of your stuff, the Public Storage is an option. Just pick one of the empty boxes, mark your contacts and estimated schedule. The boxes will be cleaned frequently, a couple of times per year. Please use this storage freely but responsibly.

For storing valuable or confidential items: ask the staff if there are lockers available, or any other safe options.





On 2nd floor this place labeled "Cut & Ink" is able to print posters, stickers etc. The studio for photo and video shooting is near by. Here can meet our technical staff for consultation, or borrowing cameras, AV-stuff and such like.



Close to Cut & Ink there's a storage for office stuff that may support your project (colored papers, post-its, markers or anything related) This storage should only be attacked together with a staff member, so don't hesitate to ask anyone.



The ADF Lab and Bunker are meant for all kind of building, exploring and testing of prototypes and concepts. The Lab space is surrounded by print-, machine-, and electros shops. Down in the Bunker we have shops for painting and woodworks. Look around for tools, battery powered tools, safety gear and jackets available.

Look for screws, bolts and nuts from the cart, the blue lockers include tapes and cable ties – in the Bunker there are more Würth boxes for small components e.g. springs, o-rings, locking pins etc.





Limited assortment of hard and soft materials are available: steel, aluminium, timber, plywood, polymeric foam, cardboard, kapa-sheets, polymer materials. For any larger needs always consult the staff.



There is a blue box in front of electroshop that is for electric recycling 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 contracted cleaning company. However, if the smaller recycling/waste boxes inside get full during the day, it's the user's responsibility to make space. Please take those out and empty them in the proper large collection box outside (if you are unsure, always consult the staff).

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 -