

DO YOU WANT TO MAKE A WORKSHOP ABOUT TOOWHEELS?

Contact us, we will be happy to help you in setting-up the workshop for the replication of the project. We already cooperate with FabLabn Foundation and other foundations and research group all over the world, join us!

Here some info if you want to set up a workshop in your makerspace or fablab.

WORKSHOP DESCRIPTION

This workshop will teach you how to built your own wheelchair starting from the Toowheels project. Toowheels is the first DIY wheelchair, born from mixing design for all skills and maker's world: www.toowheels.org.

During this workshop we explain you how to start in designing your wheelchair from the Toowheels user manual, customizing the project for your needs, making your own wheelchair using simple material and tools. At the end of the process you can use your chair, improving it as your fantasy want, and repairing easily broken parts!

NUMBER OF PEOPLE EACH INSTRUCTOR

It depend from a lot of thinks, bur more or less one instructor can support the building of 4 or 5 wheelchairs (better if people work in groups of 2/3 persons, especially if one of them as some disability).

ESTIMATED TIME

It's possible to make a wheelchair in about 4 appointment of 3 hours each. I suggest to add one extra hour at the end of the workshop, so people can play and use together their new wheelchairs!

AGE REQUIRED

The process is not so difficult, so the workshop can be open from the age of 16 years old. But for the construction of the chair you have to cut some metal pipe and plywood sheet: the level of danger and difficulty depending on your kind of tools, so we suggest to have at least one adult each wheelchair you want to built.

LEVEL OF DIFFICULTY

The workshop can be open at beginners, because it's made almost of simple operations.

HOW TO GET YOURSELF READY!

You don't need any special skills to to this workshop, but if you have any basic understanding in cut and drill wood or metal parts it's better. For the correct customization process of your wheelchair, you need to know how its works: we suggest you to be confidential with a wheelchair trying to use it, talking with people that use wheelchairs, looking for some images and videos of wheelchairs on internet in order to have an idea of this world.

TEAMS

For this workshop we suggest to let people work in team: at least 2 people each project and maximum 4. Take attention if one of the team has some disability and if needs help, eventually add some extra participant at the team!

WORK SPACE

For the workspace we suggest to have a 200 x 100 cm table each team for storage and assembling the wheelchair, eventually you can use the floor but it's not so comfortable for people with disability. People can share one single working table, but It's important to have some different tools in order to not slow down the work of the teams waiting's. Use a projector for showing the slides of the workshop and we suggest you to have a blackboard to write and draw on. You don't need chairs.

TOOLS NEEDED

You need:

- jigsaw wood cutter, at least one every 2 team but it's better one saw each team;
- angle grinder, at least one every 2 teams;
- orbital sander, at least one every 2 teams, It is not required but it speeds up much of the work;
- sandpaper P40 and P220, more or less two 22 x 27 cm sheets for each type, each team. (use the sandpaper you want, remember you need to have a coarse and a fine finishing);
- drill, one each 2 teams with some different drill bits for wood and metal, especially 8mm, 10mm;
- spade bit of 16mm, one every 3/5 teams;
- laser machine, for cutting 10mm plywood, It is not required but it speeds up much of the work;
- dust mask, one each participant;
- working gloves, at least one pair each team;
- brush, at least one each team;
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SAFETY CONSIDERATION

Be careful that people work in safety condition when they use electric tools or cutting tools. If they are beginners explain how to use and find some other instructor that can help you in mentoring the teams. Advise people using dust mask and safety gloves if they cut and sand wood or metal. We suggest to use sanding machines and paints at the open air.