



# The M-project

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Joutsan lukio



## Abstract

In our LfE project, we investigate the prerequisites for teaching 3D printing to high school students. 3D printing may be an important skill in the working life of the future.

Here we show that teaching is possible even with limited resources and in a short time period, as long as the students can be excited about it.

### Keywords:

3D printing; motivation; future; design; technology;

## Description

The pedagogical challenge was to find a teaching method that works in a short course. The technical challenge was to teach occupational safety issues, so that no one, for example, burns their fingers when working with a hot printer.

In an innovative way, we decided to use YouTube videos as a teaching method and investigate whether teaching is successful with them. The experiment worked great.

The teacher gained experience in using online materials and the almost limitless possibilities of 3D printing.

The students felt that their own knowledge and abilities had improved. Seeing their own finished figures empowered them.

Learning objectives: Using different design software, using a 3D printer

- Age group of students: 17-18 yr
- Number of students involved: 6
- Number of teachers involved: 1
- Partnerships: Joutsan Seutu newspaper

## Feel

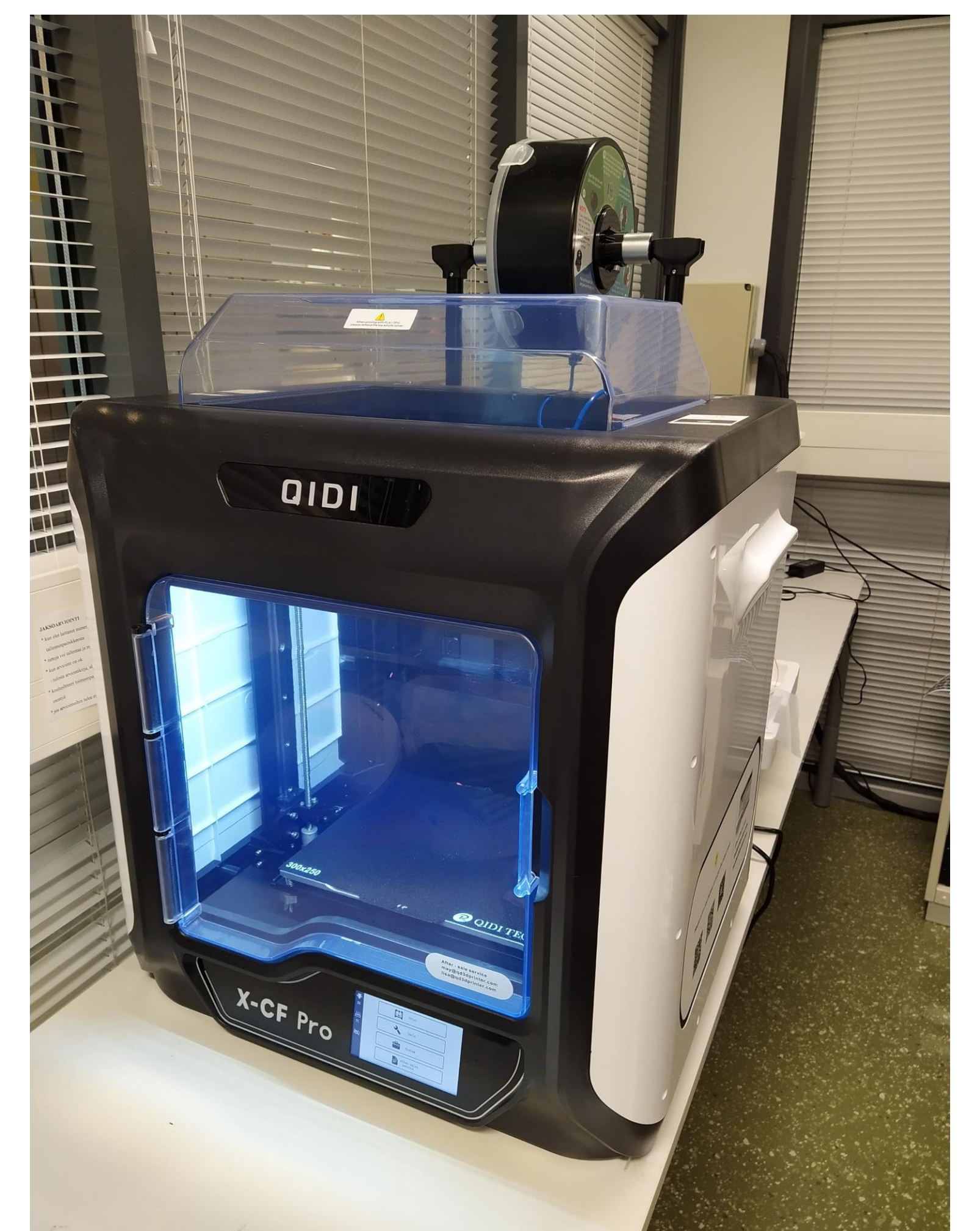
There has been no teaching of 3D printing in Joutsa, and there has been no printing device either. The solution was to get a printer and organize a printing course. The conclusion and subsequent implementation were praised profusely.

## Imagine

Students learn to design and print simple pieces such as key rings. The local newspaper Joutsan Seutu became interested in the topic and made a story about it. When the story appeared, it was one of the most read of the week in the Joutsan Seutu online newspaper.

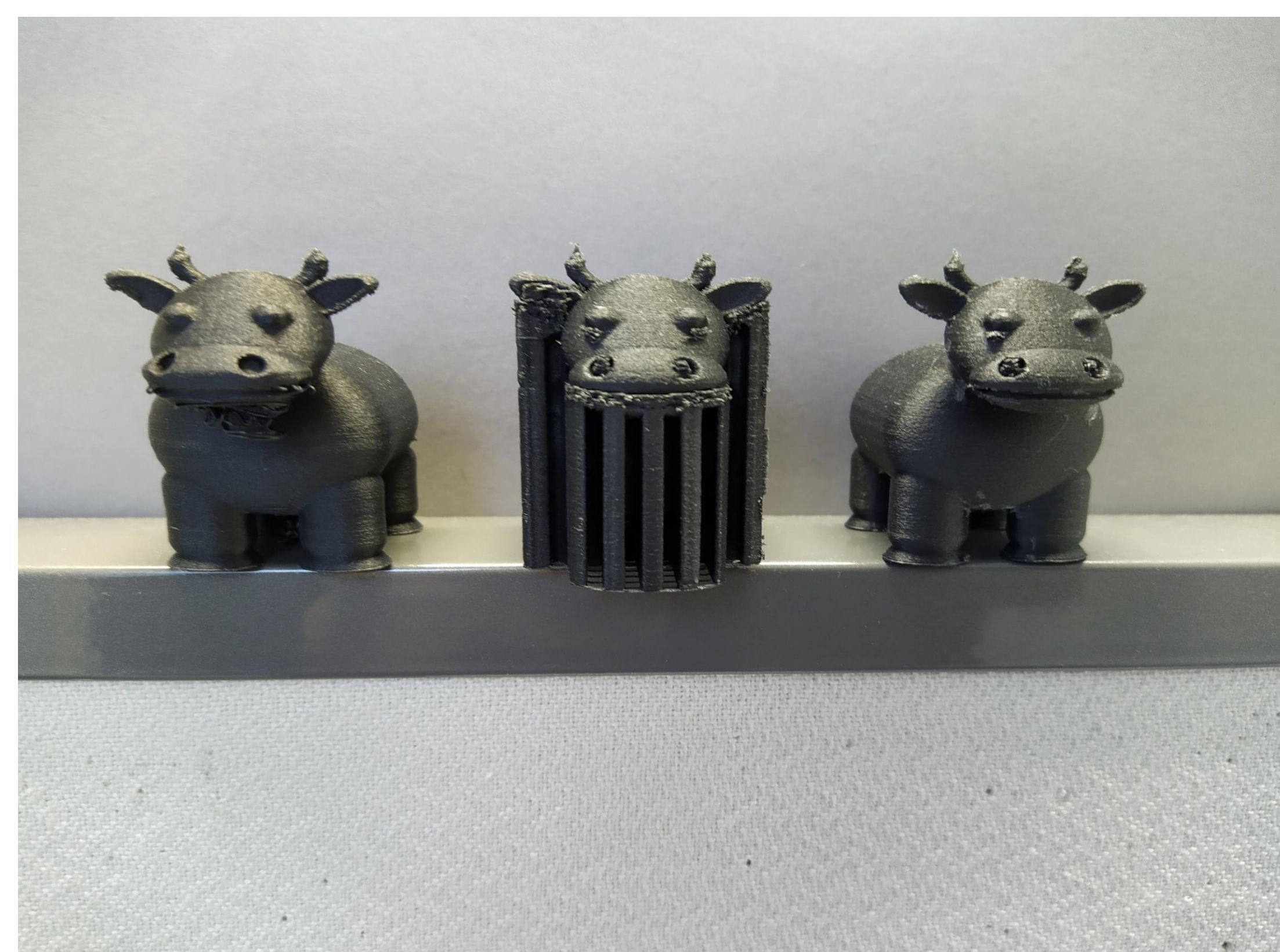
## Create

The course went smoothly, and everyone reached a good level and was able to work independently. While learning the subject, they certainly needed a little guidance, but in the end, they developed into promising independent operators. They wanted to tell the readers of the local newspaper Joutsan Seutu about their enthusiasm.



## Share

Students shared some pictures in social media and the local newspaper published an article about the project.



## Link on the portal

<https://www.schoolofthefuture.eu/en/osos/osos-project/3d-printing-workshop>