



An immersive learning environment for 3D printing



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Academia Maker is an education and technology company committed to making technical learning more accessible, practical and relevant to today's world.

The company promotes **hands-on training in digital fabrication, emerging technologies and applied innovation.** Its work combines educational experience, technical expertise and a strong commitment to social impact.

The approach is based on **the belief that technology should not be limited to specialists. It should be available to learners, educators and institutions as a tool for creativity, employability and transformation.**

Our values



Innovation

We design learning experiences that go beyond traditional classroom models, using technology to create more effective and engaging educational pathways.



Accessibility

We believe quality education should be available regardless of geographical, logistical or infrastructural limitations.



Practical learning

We focus on learning by doing, enabling students to experiment, make decisions and build technical confidence through realistic practice.



Inclusion and equality

We are committed to equal opportunities, non-discrimination and the creation of learning environments where everyone can participate and progress.



Sustainability for institutions

We help training centres and educational organisations optimise resources, reduce dependence on physical infrastructure and deliver scalable technical training.

The Educational Challenge

Technical training often depends on physical equipment, classroom space and constant supervision.

Academia Maker addresses these barriers by creating a virtual workshop where students can practise essential procedures before moving to real-world production.

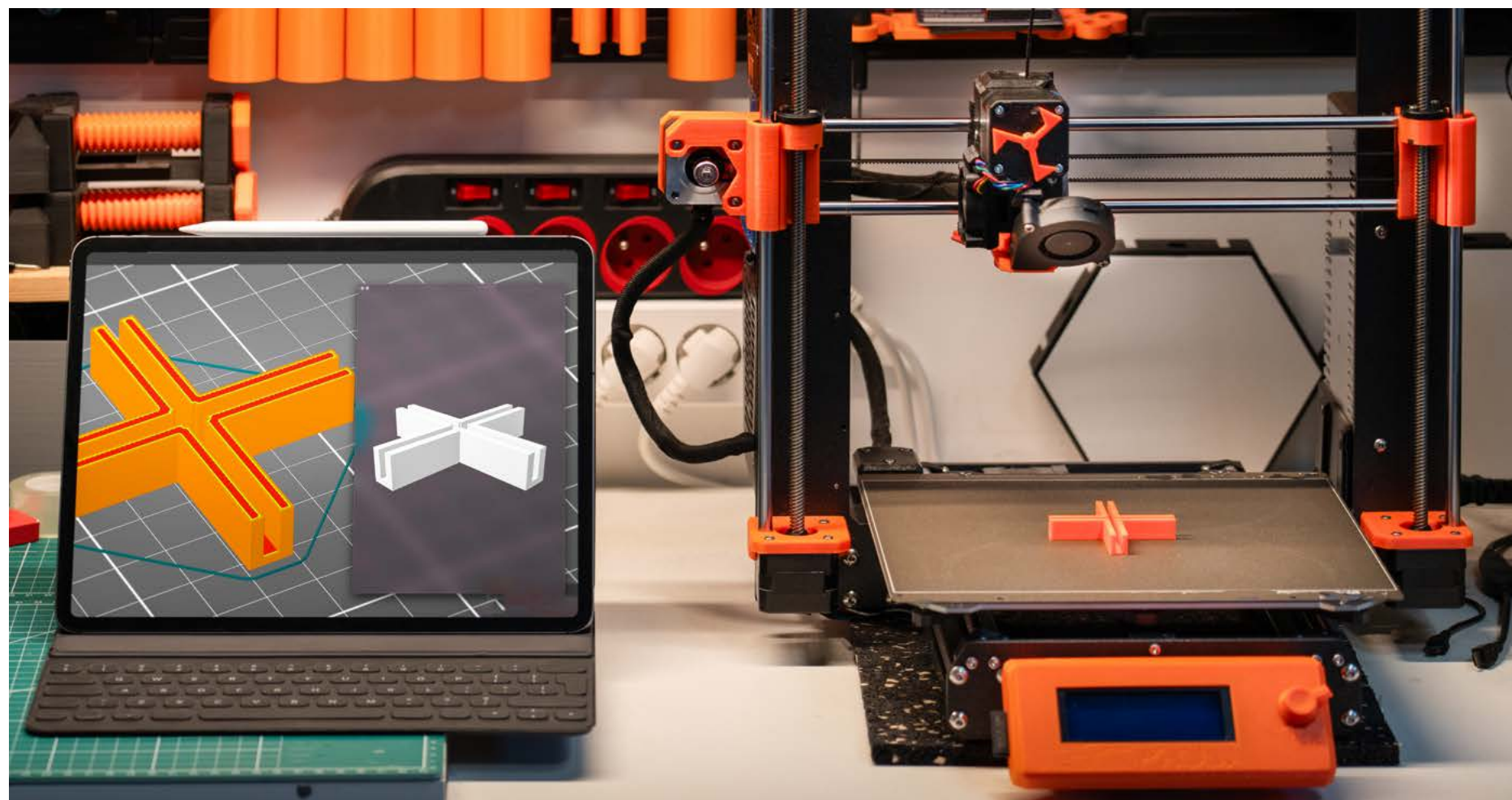
In 3D printing, this can mean:

- ***Limited access to machines***
- ***High equipment and maintenance costs***
- ***Material waste during practice***
- ***Safety and supervision challenges***
- ***Uneven learning opportunities***

The Product

The VR 3D Printer Simulator is an immersive learning environment for 3D printing developed in virtual reality.

The experience focuses on the complete learning journey: from identifying the parts of the printer, to preparing the machine, adjusting calibration, configuring a print job and reviewing the final result.



Key purpose

To provide a safe, repeatable and practical environment where students can build technical competence in 3D printing through active experimentation.

Designed for

Educational institutions, vocational training centres, maker spaces, technology academies and organisations that want to introduce or strengthen 3D printing training.



How the Simulator Works

1

Assembly

Students identify and place the main components of the printer. Visual markers guide them towards the correct location, allowing them to understand how the machine is built and how its structural parts fit together.

2

Calibration

Students adjust the levelling screws to match a target height generated by the system. This helps them understand the importance of bed levelling and precision before printing.

3

Printing

Students prepare the print process by connecting the printer, loading a MicroSD card, selecting and configuring a model, placing the filament, setting temperatures and initiating the print.



The simulator includes visual guidance, interactive objects and feedback mechanisms to reinforce learning throughout the process.

Guided Mode and Free Mode

The VR 3D Printer Simulator includes two complementary learning modes, allowing institutions to adapt the experience to different teaching objectives.

Guided Mode

A virtual assistant leads the student step by step through the complete process.

Ideal for beginners, structured training and classroom sessions.



Free Mode

Students can explore the environment, repeat tasks and practise at their own pace.

Ideal for revision, independent learning and skills reinforcement.



Missions and Practice

After completing the learning stations, students receive missions or print orders.



Each mission includes:

- ***A technical brief***
- ***A purpose for the printed piece***
- ***Specific configuration requirements***
- ***Performance evaluation***



This turns learning into an applied challenge and develops decision-making skills.

Benefits for Education



For students

- Learn by doing
- Practise safely
- Repeat tasks without risk
- Build confidence before using real printers



For teachers

- Structured learning flow
- Consistent guidance
- Easier supervision
- More engaging sessions

Technology and Experience



Developed for Windows PCVR and Meta Quest 3.
The simulator includes:

- ***A realistic 3D printing workshop***
- ***A detailed 3D printer model***
- ***Interactive tools and components***
- ***Virtual assistant guidance***
- ***Assembly, calibration and printing tasks***
- ***Mission-based learning***
- ***Realistic printed objects and use cases***

No previous VR experience is required.

*The VR 3D Printer Simulator bridges the gap between **theory** and **practice**.*

It gives students a safe, flexible and immersive way to understand 3D printing before working with real machines.

For institutions, it offers a scalable and cost-efficient solution for modern technical education.





Academia Maker

*Learn. Practise. Configure. Print.
All within an immersive virtual environment.*

3dprintervr.com



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