



EU



Living LAB GREEN

European Alliance



A space where students bring ideas to life through VR, AI, and digital innovation.

The team's achievements were supported by the
Rector,

Prof.univ.dr.eng. Constantin Bungău



University of Oradea

Faculty of Electrical Engineering
and Tehnology Information



**EUROPEAN
RESEARCHERS'
NIGHT 2025
SEPTEMBER 26
17:00 – 22:00**

★ We will guide you in exploring a virtual experience, as part of a team of students from

Living Lab VR@UO

Coordinated by:

conf.univ.dr.ing Adriana Grava

prof.univ.dr.ing. Cristian Grava

Doctoral Teaching Assistants:

assist.univ.drd.ing Leahu Daiana

assist.univ.drd.ing. Tudor Muțiu

And the innovative students, eager for virtual experiences:

Alexandru Șorian an 2 IEC

Bogdan Panea an 2 IEC

Raul Hanga an 3 IEC

Rareș Silaghi an 2 IEC

Dudaș Zsolt An 2 IEC

Patric Grigore an 2 IEC



immersive experiences,
interactive simulations
and 3D content that
transform the way we

TEAM



I — EDUCATIONAL CREATIONS —

The education of the future is interactive,
immersive, and personalized.

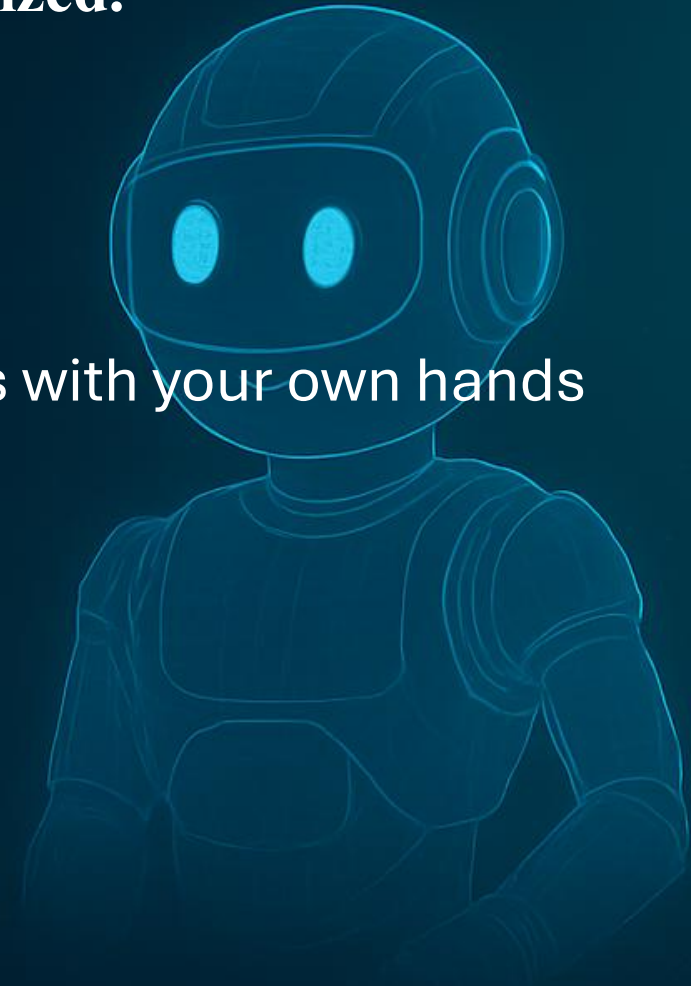
 **Complete immersion**
360° of sensory experience



 **Interactivity**
Manipulate objects with your own hands



 **Simulated reality**
Your brain believes you are actually there



OBIECTIVELE PENTRU DEZVOLTARE DURABILĂ



Nr. crt.	Activitatea/Evenimentul	Data desfășurării /locația	Parteneri	Participanți
1.	Noaptea Cercetătorilor Europeni	26.09.2025 la Sala Polivalentă – Campus Universitatea din Oradea.		Au participat 6 studenți cu prezentări interactive pe ochelarii Meta Oculus 2.
2.	Lirian Center	04.11.2025		Lirian Harmony Center-Oradea
3.	“Student pentru o zi”	11.11.2025	Liceul Traian Vuia, Liceul Mihai Viteazul	10 elevi din clasele XI, XII au fost în vizită la Universitatea din Oradea, sala C 57.
4.	Asociația Pyramid Learning Center – Oradea	11.11.2025		Prezentarea de creații educaționale ca și exemple, modele în perspectiva unei colaborări.

**Servicii/instrumente/modele/documentații tehnice/politici oferite de Living Lab:
VR@UO**

- Transformarea laboratoarelor clasice în laboratoare virtuale, îndrumătoare de laborator transformate integral în lecții interactive 3D,XR,VR.
- Dezvoltarea și furnizarea de creații educaționale interactive (lecții XR, simulări, experiențe 360°).
- Instruire în activități de utilizare a instrumentelor de realitate virtuală.
- Proiectarea modelelor 3D pentru lecții interactive.
- Crearea jocurilor virtuale educative pentru diverse categorii de vârstă.
- Realizarea pliantelor informative digitale.



Collaborations and Collaboration Intentions

**Educational
Creations and
Courses**

For levels:

- High School
- Preschool
- Middle School

**VR
experiences for
understanding
concepts used
in Healthcare.**

**Development
and
implementation
level
in VR, AI**

EON-Reality

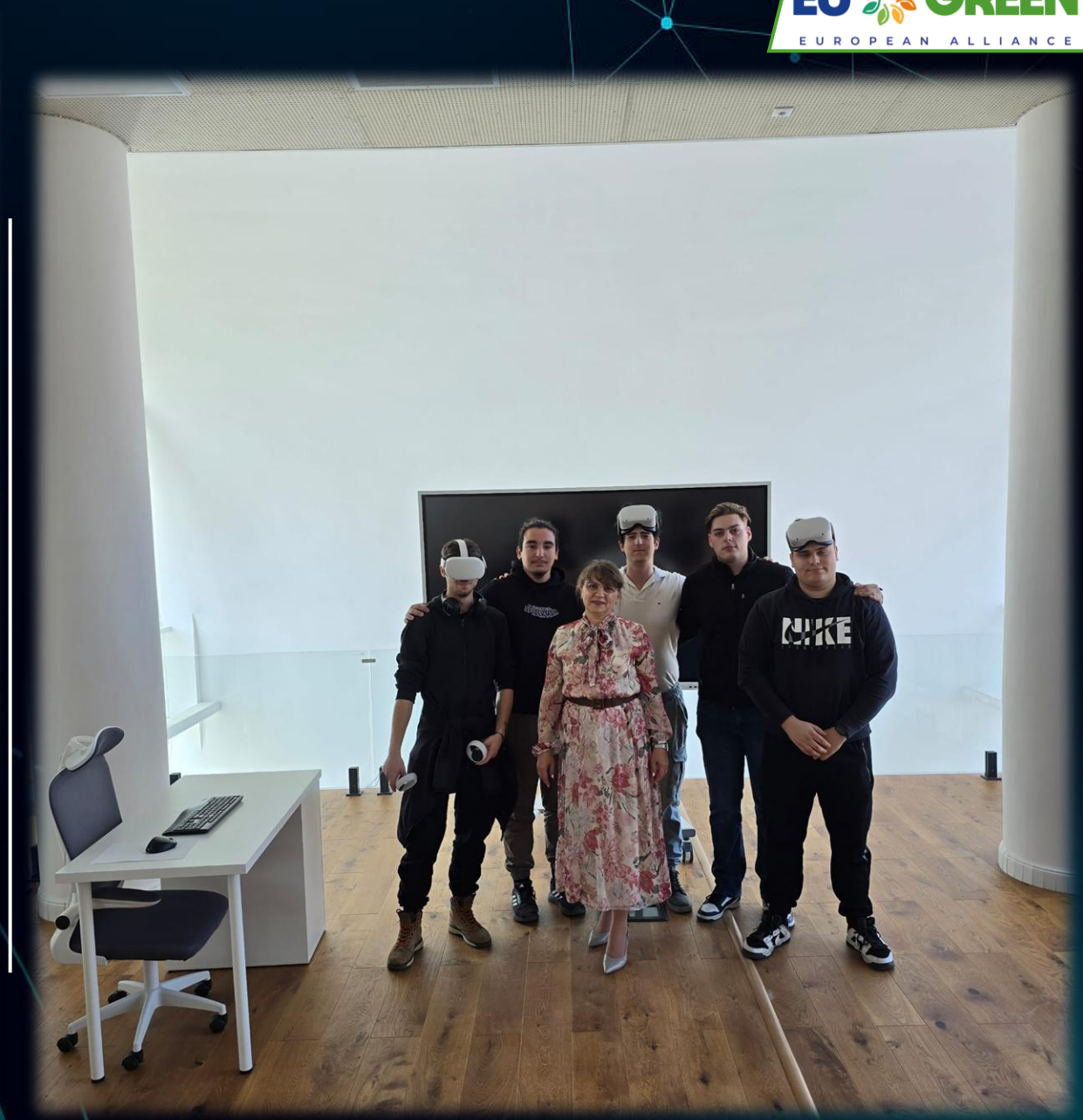
**Don Orione College
Onisifor Ghibu
College
Emanuil Gojdu
College
Nicolae Bălcescu
School
Kindergarten No. 45**

**University of West
Attica**

> CONCERT Lab

**QUBHQ
Lirian Harmony
Center Oradea**

**Asociația Pyramid
Learning Center –
Oradea**





CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Adriana-Marcela GRAVA

For successfully completing EON Reality's
EON-XR Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.

A handwritten signature in black ink.

DAN LEJERSKAR
FOUNDER

May 16, 2025

DATE

CERTIFICATE # 153-831-EON-XR-2025



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Adriana-Marcela GRAVA

For successfully completing EON Reality's
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and demonstrating proficient academic usage of the EON-XR Platform.

A handwritten signature in black ink.

DAN LEJERSKAR
FOUNDER

July 21, 2025

DATE

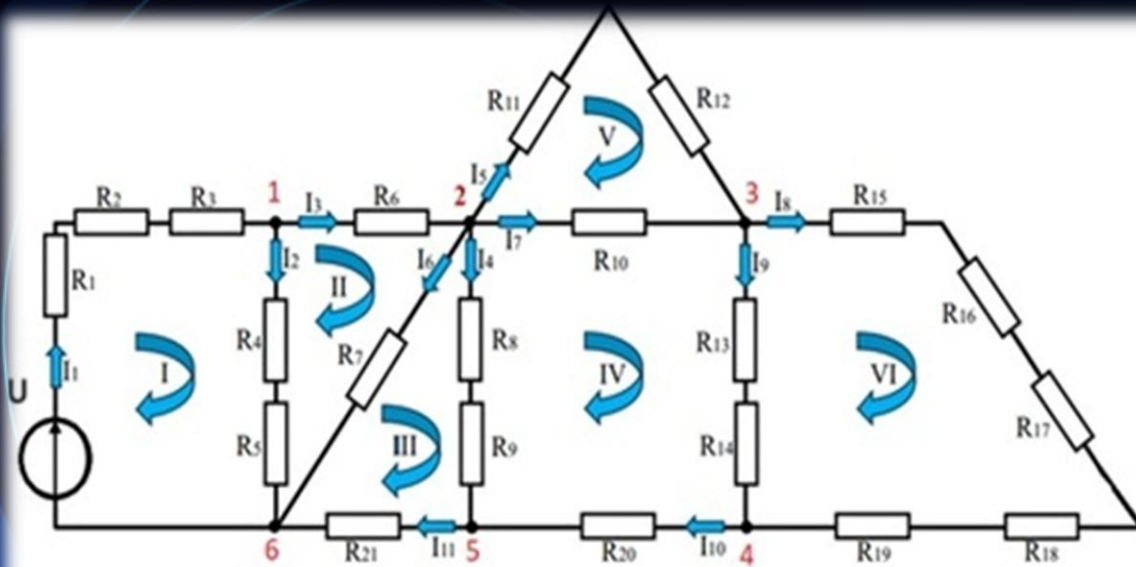
CERTIFICATE # 240-831-EON-XR-2025



From physical laboratories to virtual laboratories



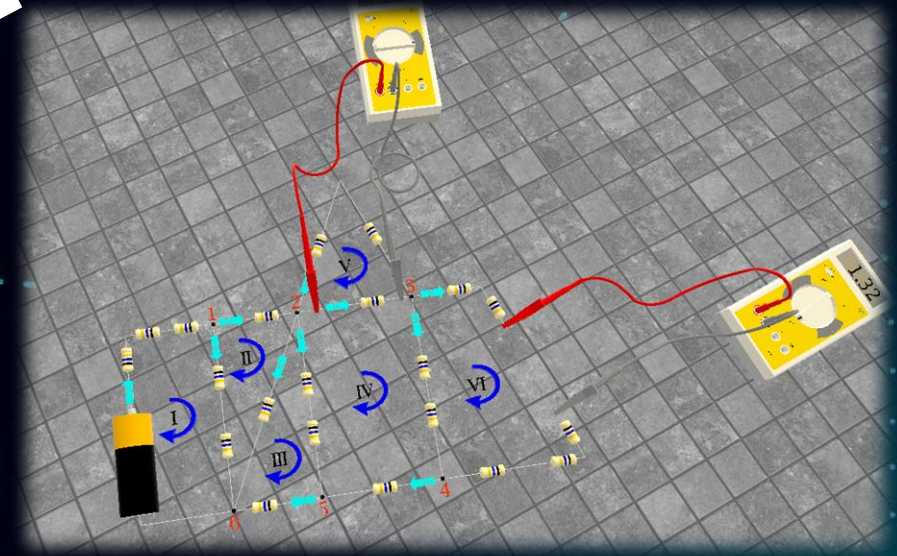
We started from classical instruments — measuring devices, oscilloscopes, resistor circuits, and experiments based on Kirchhoff's Theorems — and reached immersive virtual experiences, where students can visualize, simulate, and interact with phenomena in real time.



The learning process has evolved significantly through the transformation of traditional laboratories into interactive digital labs, where concepts can be explored in an innovative and intuitive environment.

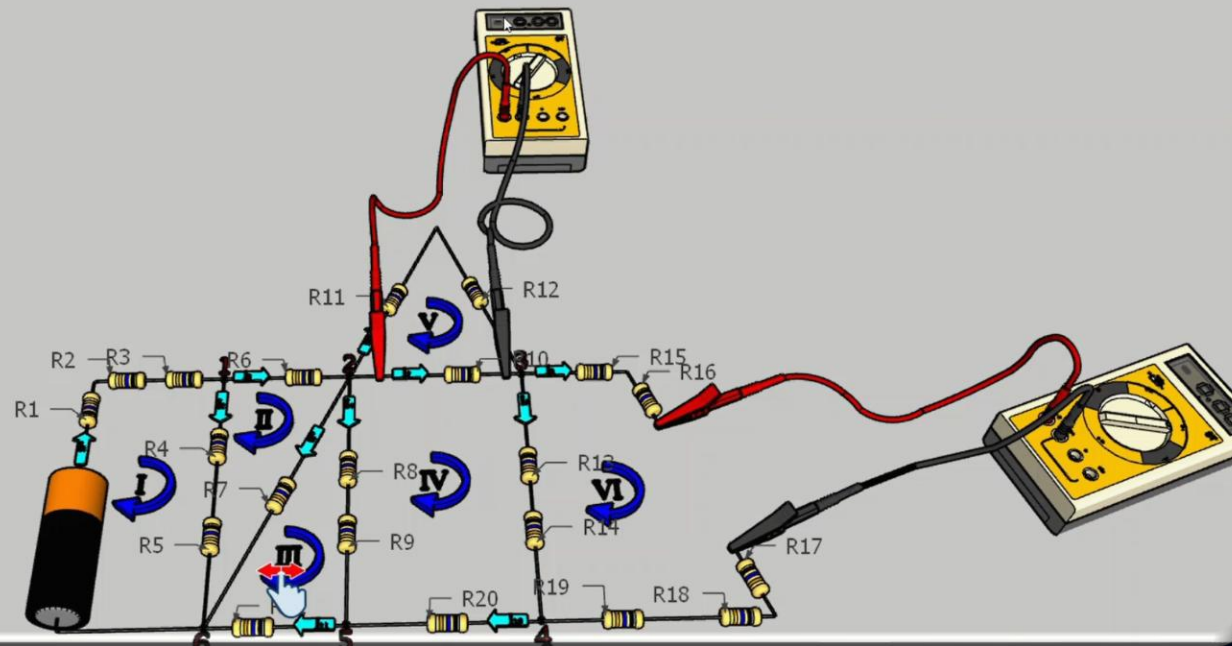


Access the lesson!





Video Explanation :

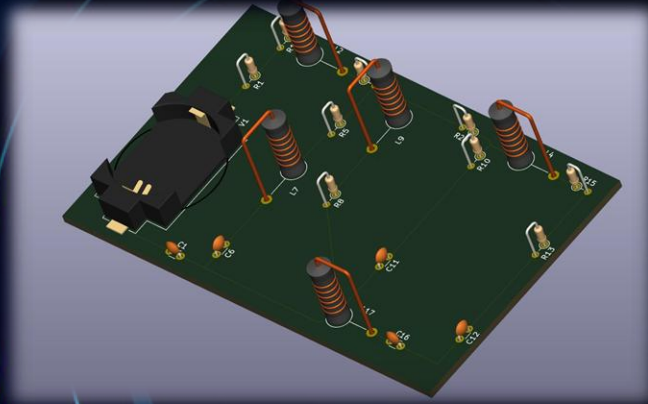


Access the lesson!

From physical laboratories to virtual laboratories



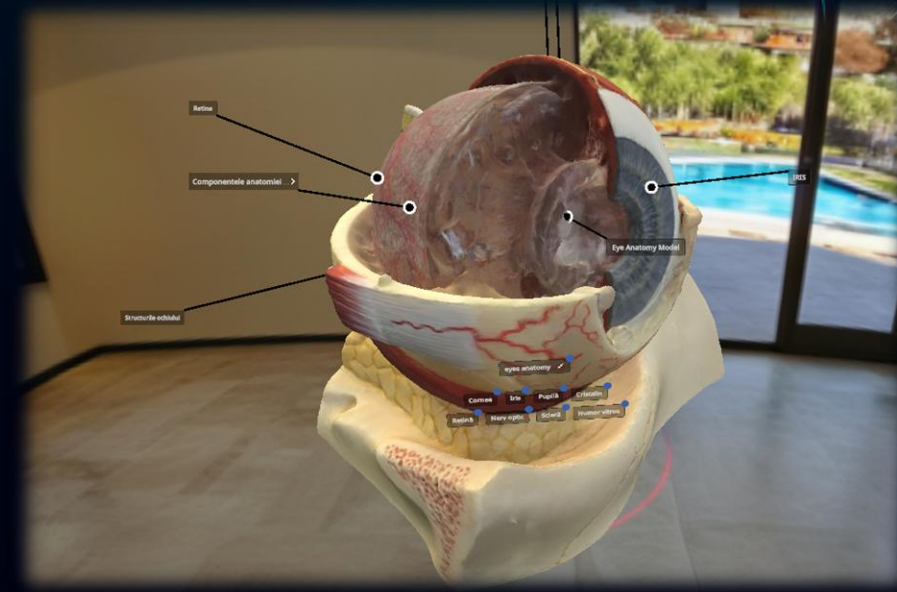
Thus, laboratory activities such as measuring current, connecting resistors in mixed configurations, or constructing a Bond Graph are now carried out in VR/AR environments, which provide instant feedback and a deeper understanding of fundamental concepts in electronics and electricity.



Access the lesson!

Education is moving from the physical space to the virtual one, without losing its practical essence, but amplifying it through technology.

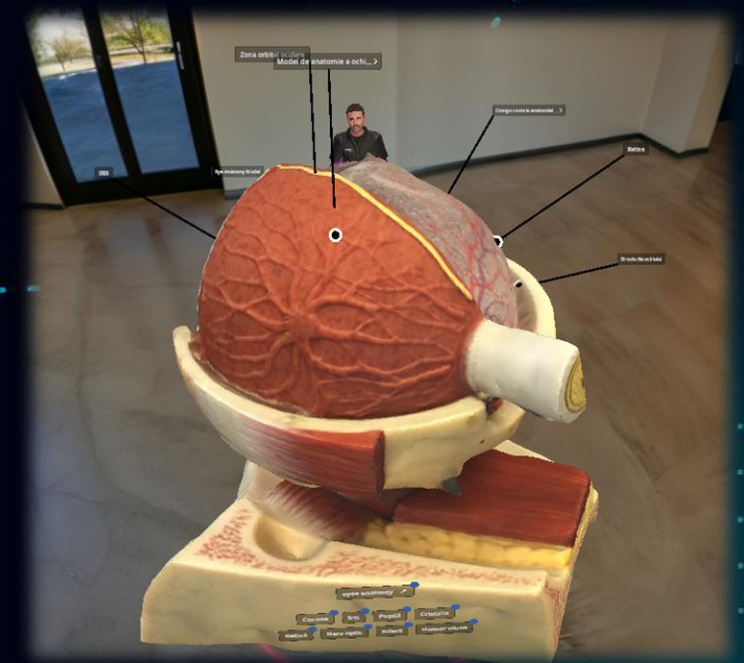
Artificial Vision



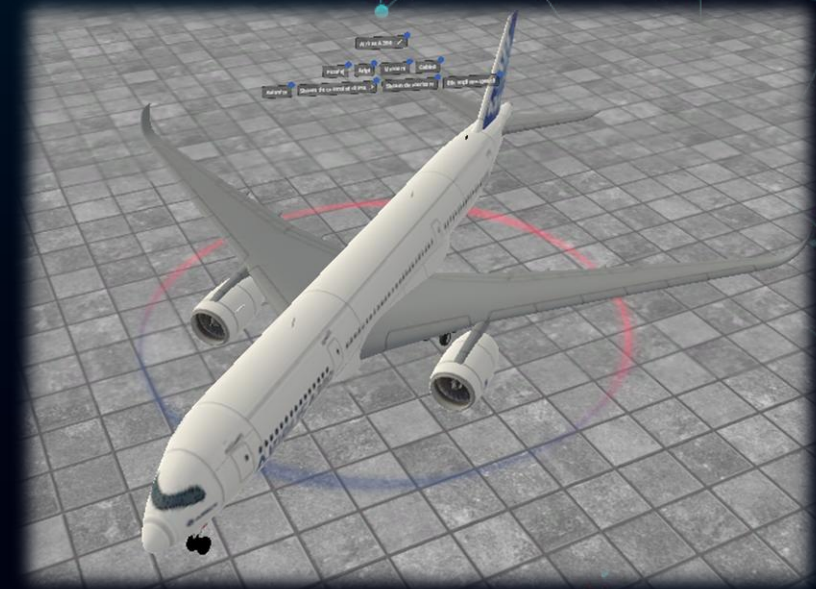
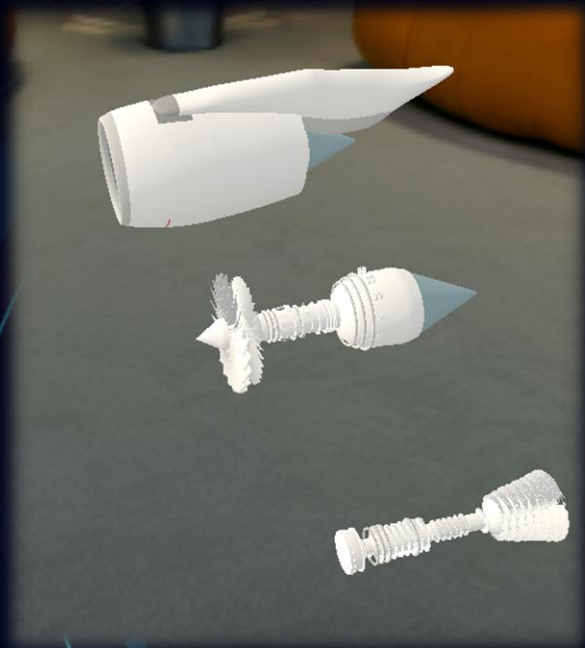
Annotation



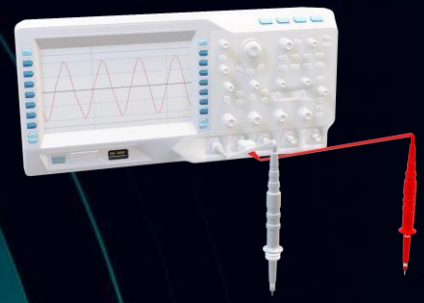
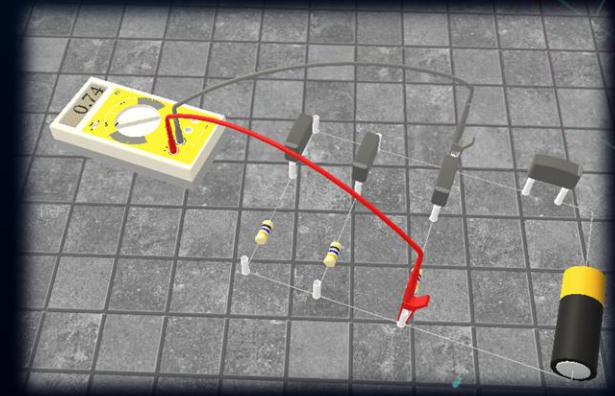
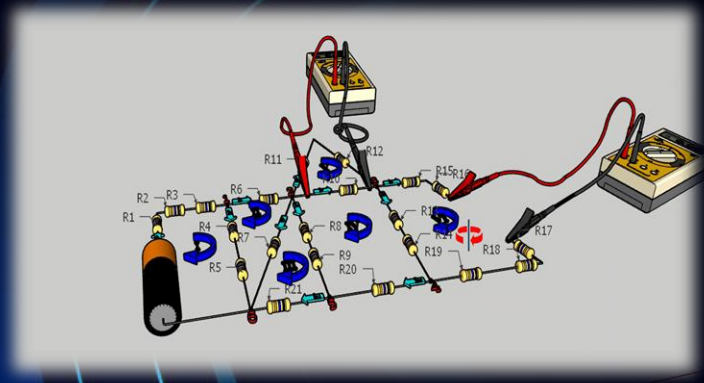
This VR lesson offers an interactive experience for exploring the principles of artificial vision. The user can observe how intelligent systems perceive and analyze the environment, simulating the visual recognition processes used in artificial intelligence.



Engines used for the Airbus A350

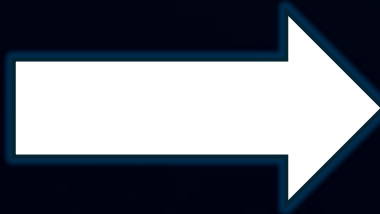
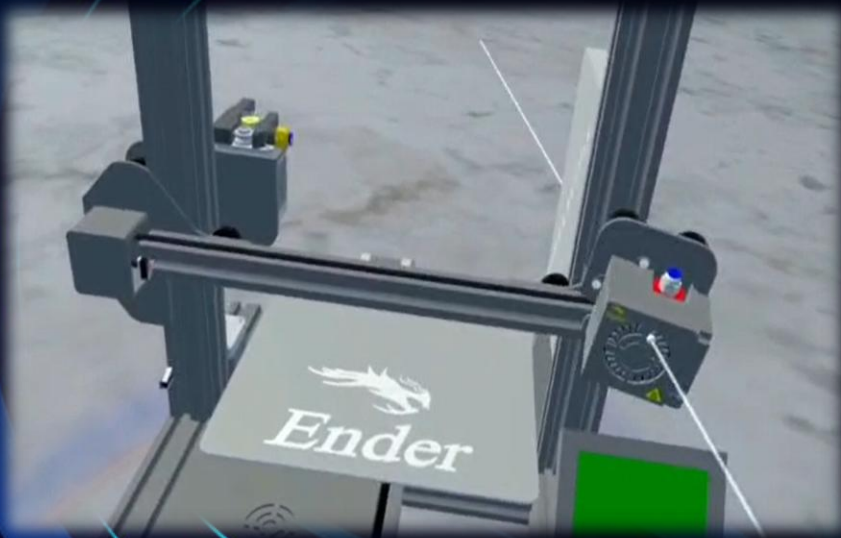


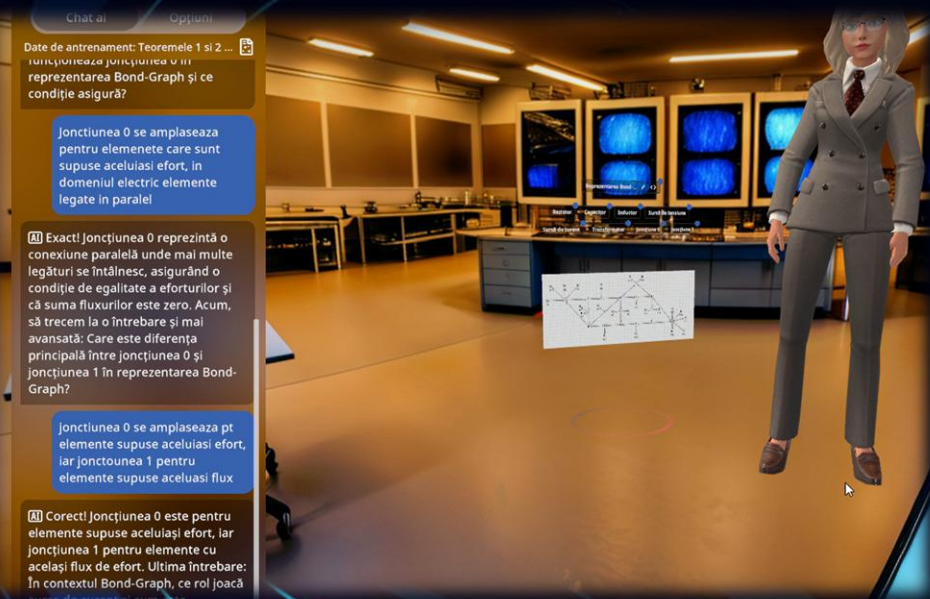
Customized Creations – 3D Design



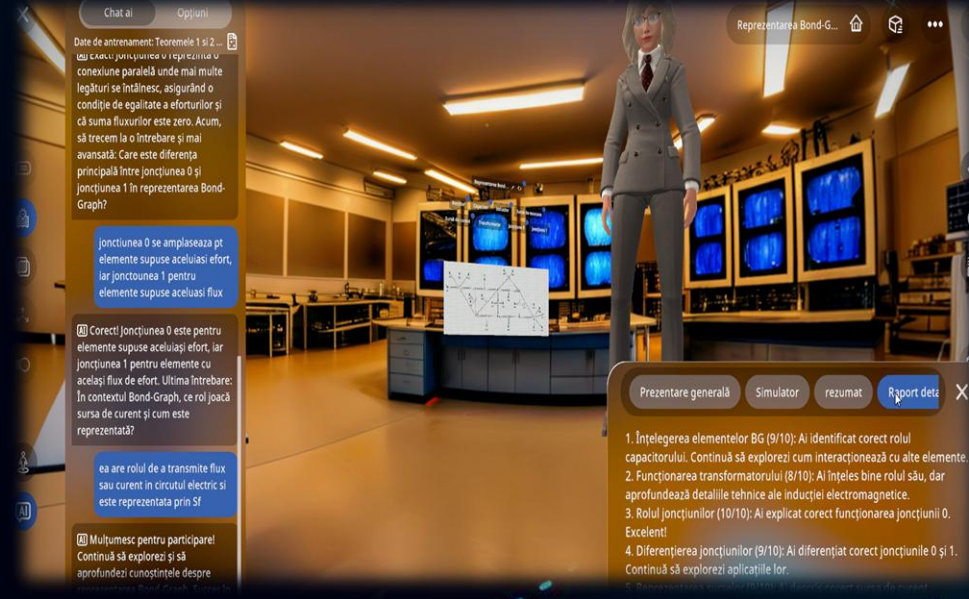
—— Special effects included in course ——

**Evaluation for
Incorrect answers**





(1) Training – Avatar Narrative



(2) Detailed Evaluation

—— The future is here, keep up with it! ——



II Join the laboratory of your dreams, Redefine the personalized learning process!

In virtual reality, you can practice without risks. You have the freedom to repeat the steps until you master them completely, to test challenging situations, and to learn from mistakes in a controlled and safe environment.



Medicine

Surgical operations on virtual patients

Engineering

Testing structures under extreme conditions

Emergency situations

Training for natural disasters

Aviation

Flight simulator for pilots



EON XR Team Certificates



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Sorian Alexandru

For successfully completing EON Reality's
EON-AI Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.

A handwritten signature in black ink.

DAN LEJERSKAR
FOUNDER

July 21, 2025

DATE

CERTIFICATE # 237-831-EON-XR-2025



CERTIFICATE OF COMPLETION

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Sorian Alexandru

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DAN LEJERSKAR
FOUNDER

July 21, 2025

DATE

CERTIFICATE # 211-831-EON-XR-2025



— EON XR Team Certificates —



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Mihai Kimpan

For successfully completing EON Reality's
EON-XR Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.


DAN LEIERSKAR
FOUNDER

October 07, 2025
DATE

CERTIFICATE # 264-831-EON-XR-2025



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Mihai Kimpan

For successfully completing EON Reality's
EON-AI Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.


DAN LEIERSKAR
FOUNDER

October 08, 2025
DATE

CERTIFICATE # 319-831-EON-XR-2025



— EON XR Team Certificates —



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Bogdan Antonio George Panea

For successfully completing EON Reality's
EON-AI Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.


DAN LEIJERSKAR
FOUNDER

August 26, 2025
DATE

CERTIFICATE # 242-831-EON-XR-2025



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Rares Silaghi

For successfully completing EON Reality's
EON-XR Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.


DAN LEIJERSKAR
FOUNDER

October 07, 2025
DATE

CERTIFICATE # 252-831-EON-XR-2025



— EON XR Team Certificates —



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Larisa Ștefania Raț

For successfully completing EON Reality's
EON-AI Educator Course
and demonstrating proficient academic usage of the EON-XR Platform.

A handwritten signature in black ink, appearing to read "Dan Lejerskar".

DAN LEJERSKAR
FOUNDER

October 08, 2025

DATE

CERTIFICATE # 320-831-EON-XR-2025



CERTIFICATE OF COMPLETION

This certificate is hereby awarded to

Larisa Ștefania Raț

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A handwritten signature in black ink, appearing to read "Dan Lejerskar".

DAN LEJERSKAR
FOUNDER

October 07, 2025

DATE

CERTIFICATE # 263-831-EON-XR-2025



— The team's achievements —

We are not just a space with equipment – we are a living ecosystem that adapts, learns, and grows alongside the needs of the academic and industrial community.

The team's achievements were made possible with the support of the Rector,
Prof. Univ. Dr. Eng. Constantin Bungău.

Rares Silaghi

Dudas Zsolt

Panea Bogdan

Sorian Alexandru

Patrick Grigore

Raul Hanga

Larisa Raț &
Mihai Kimpan



We adapt to the needs of each project.



We work with students, teachers, and industry.



We develop new solutions for real-world problems.



We are building a network of VR experts.

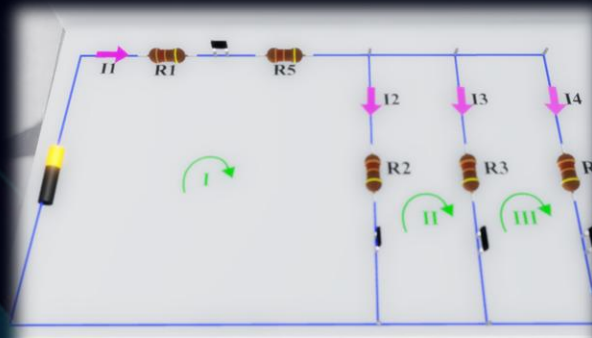
First game: **Electric LAB VR**

It presents a circuit and a multimeter through which we can measure the current intensity using the values we input ourselves.



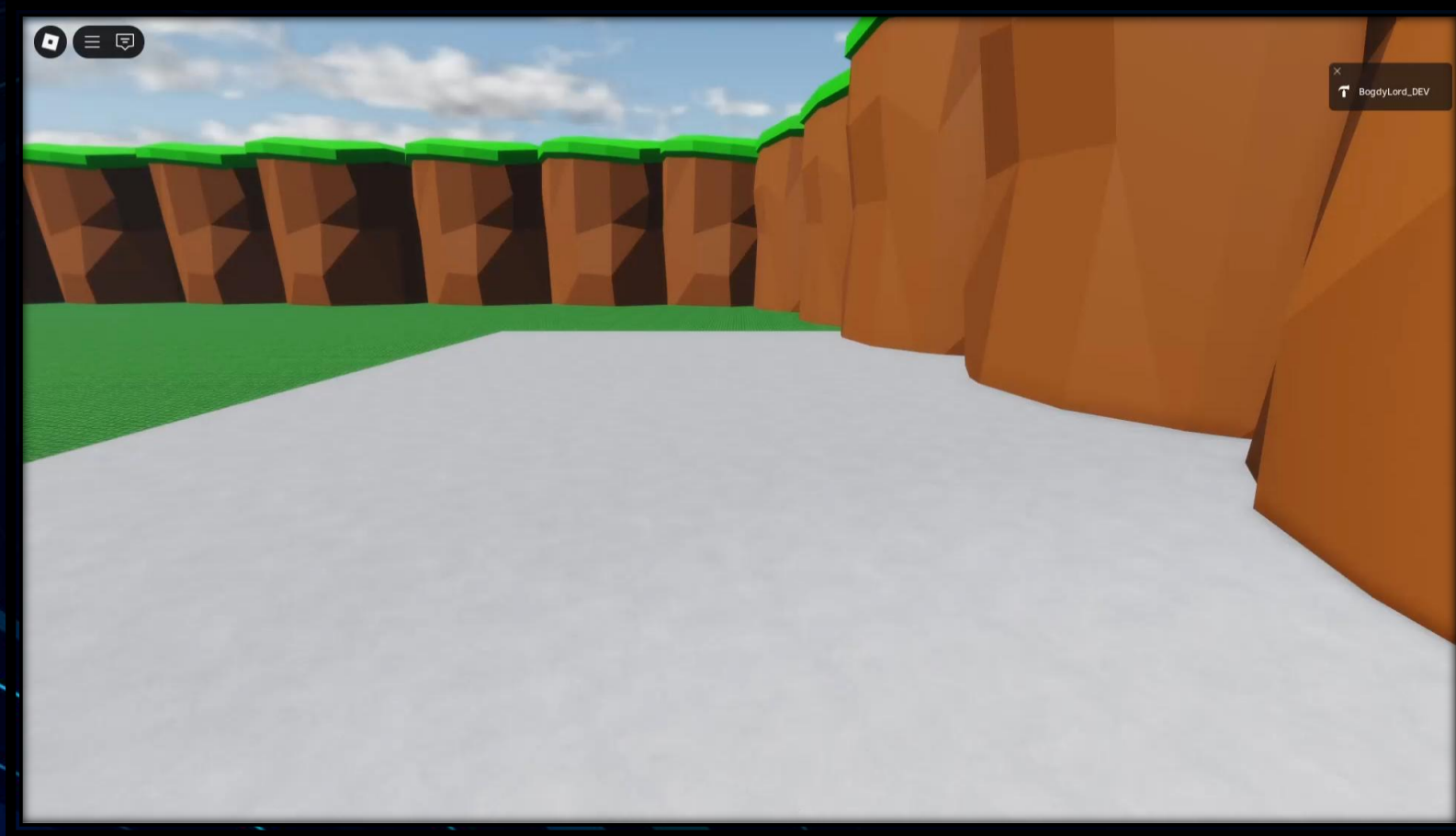
* Working clamps (2)

* Working circuit (1)



* Working multimeter (3)

First game: **Electric LAB VR** (example video)

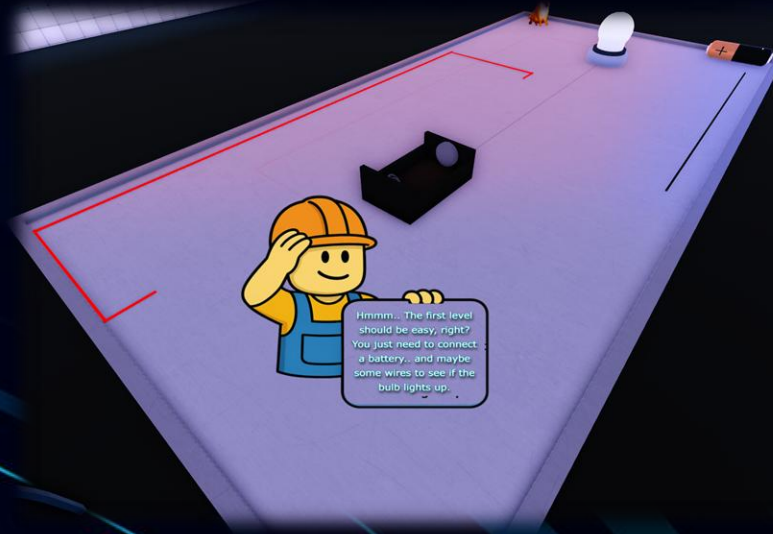


**Back to the team's
achievement;**

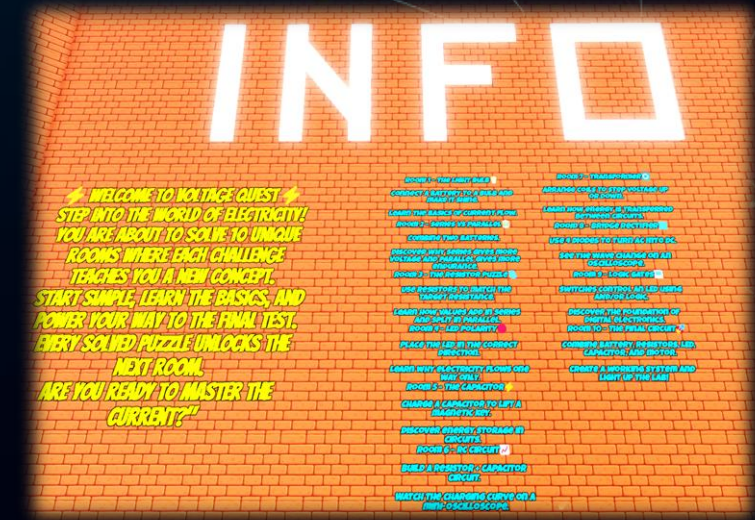
** The game is continuously being developed.*

Second game: Voltage Quest

10 levels where you must solve circuits to complete the game.



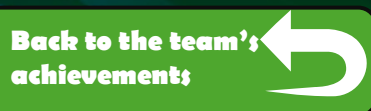
(1) First level of the game



(2) Informations about game levels



Second game: **Voltage Quest** (VR Video)



— Achievements – Panea Bogdan —

Exploring the components of a PC

An interactive VR lesson that presents the main essential components of a computer.



Access the lesson!



**Back to the team's
achievements**

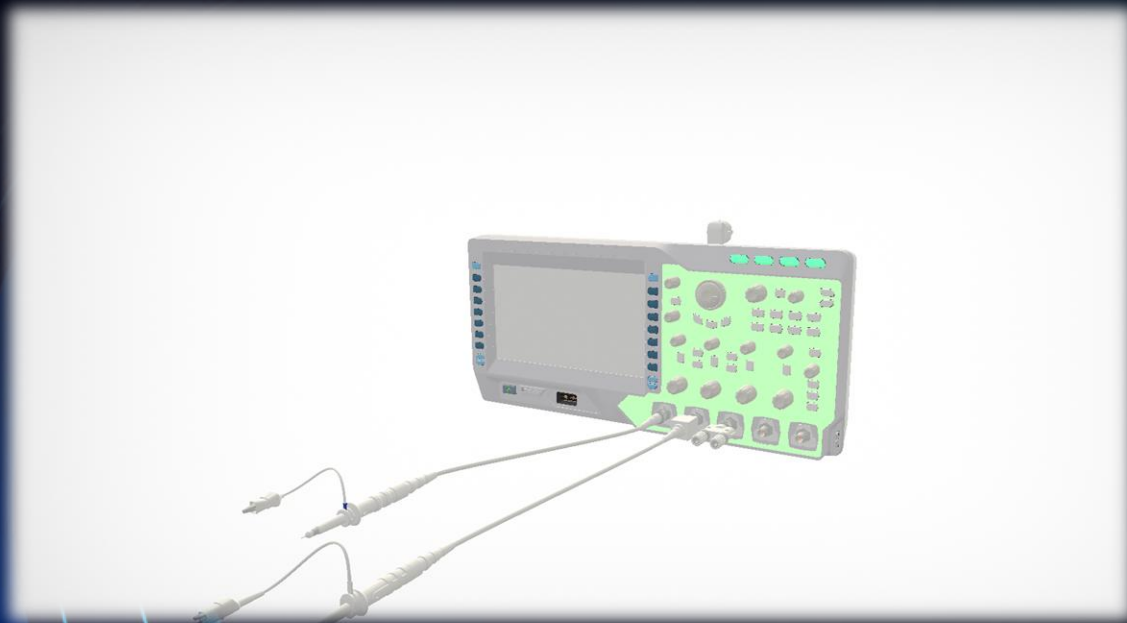
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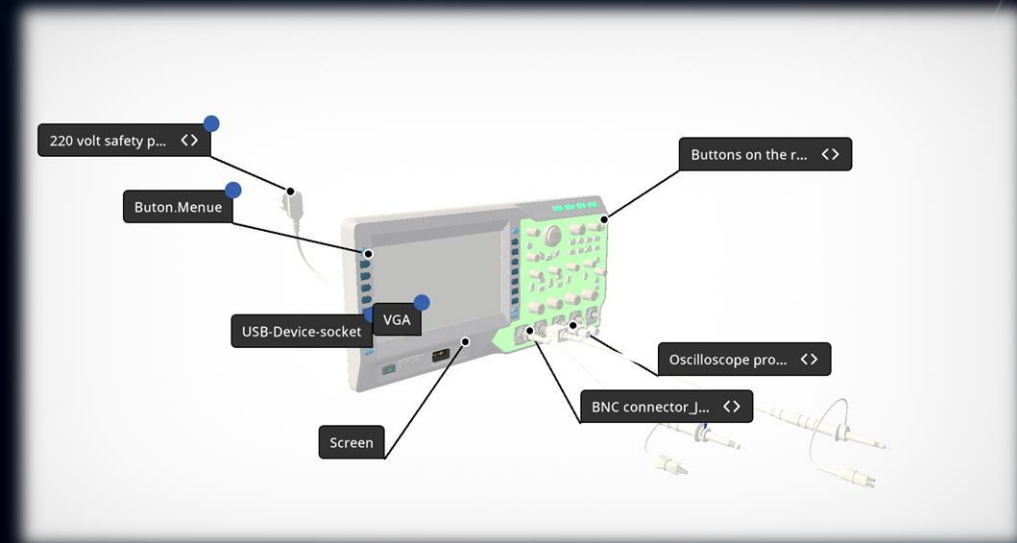


Access the lesson!





3D experience created in EON-XR Oscilloscope



Access the lesson!



— Achievements — Rares Silaghi —

MQ9 Ripper



Video from lesson



Access the lesson!



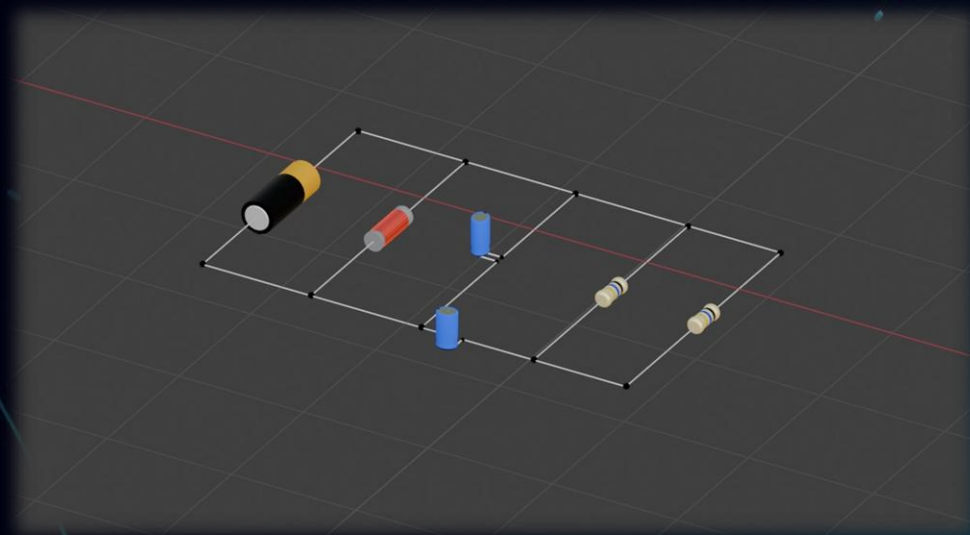
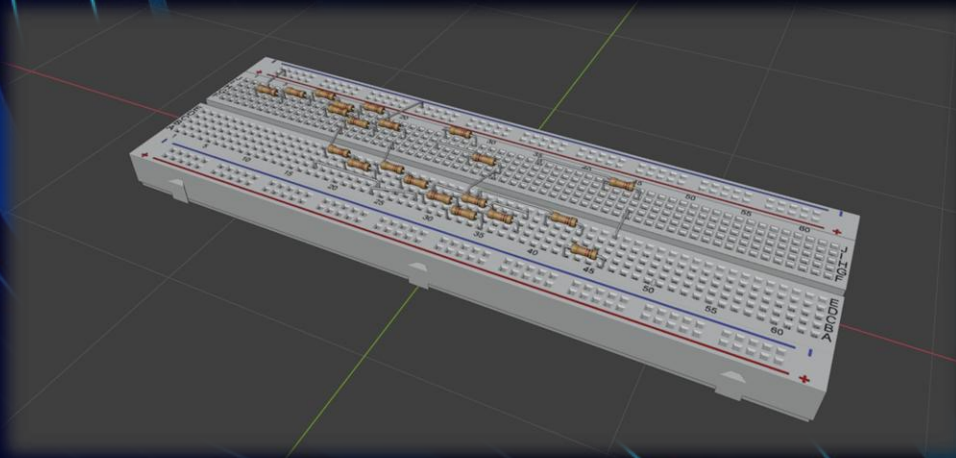
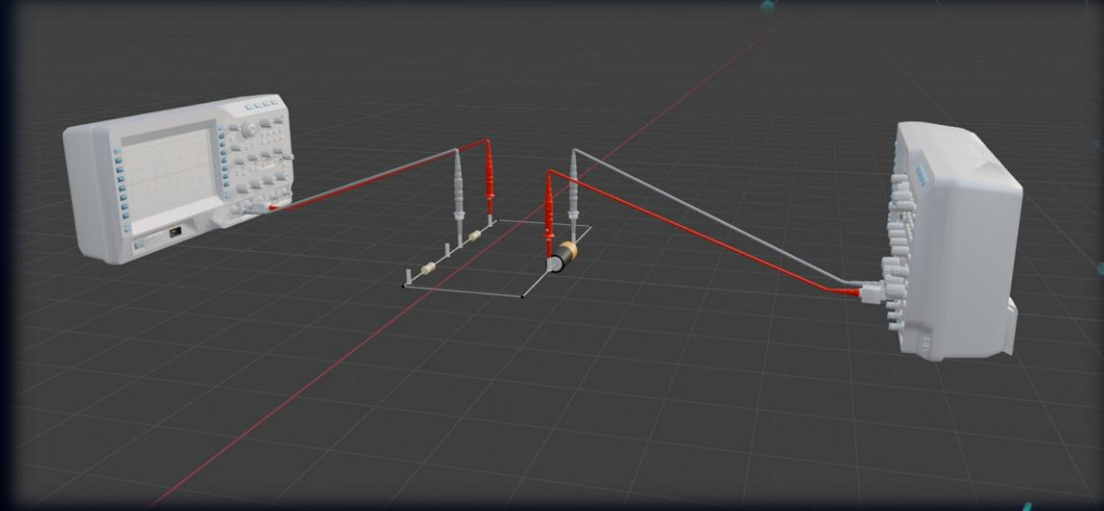
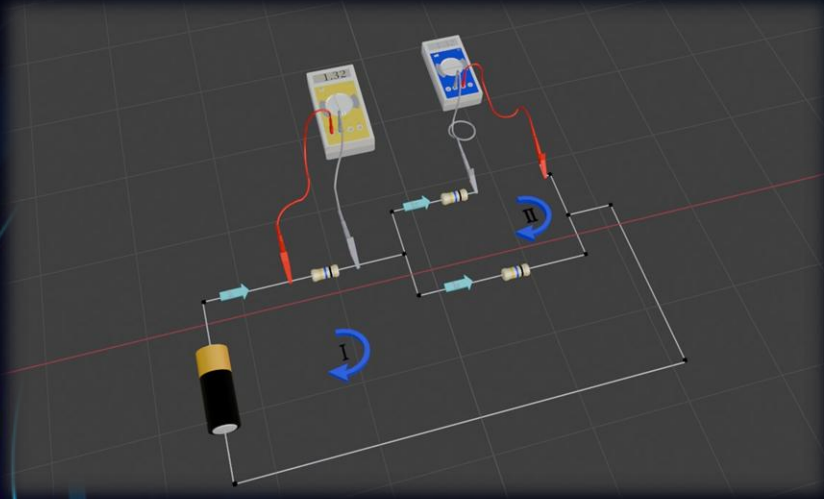
Remote collaboration in defense and military aircraft.



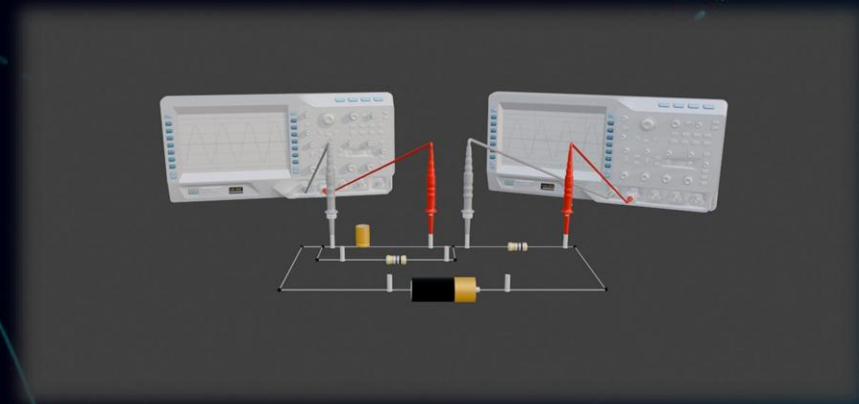
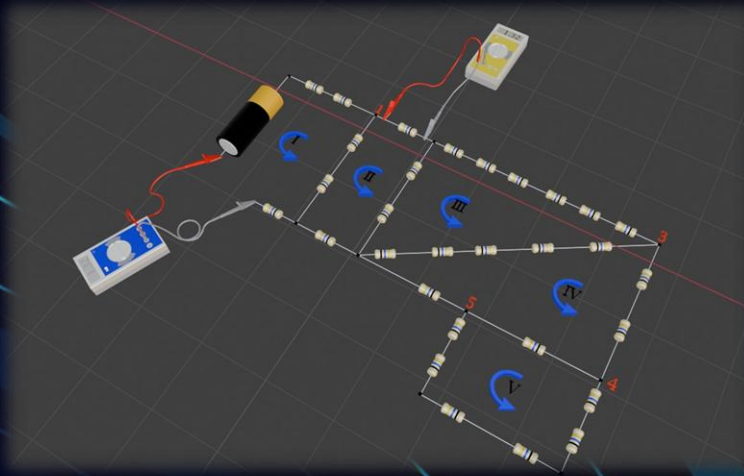
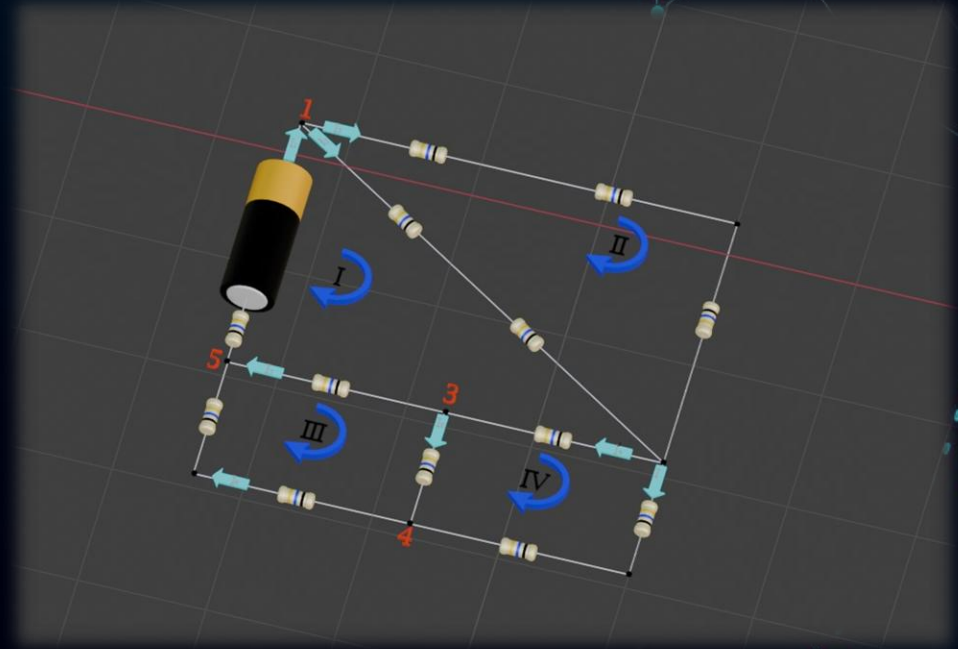
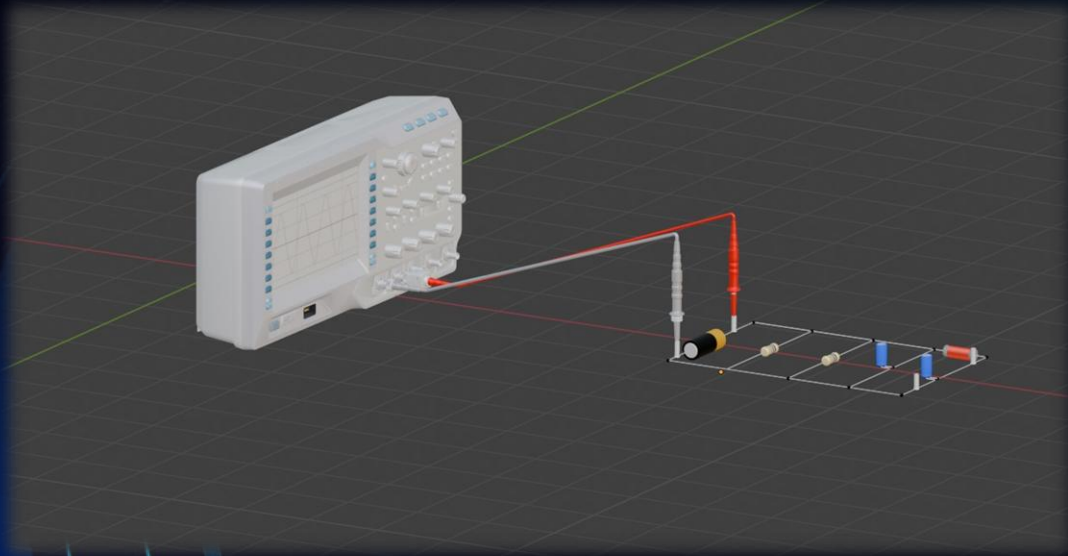
Access the lesson!



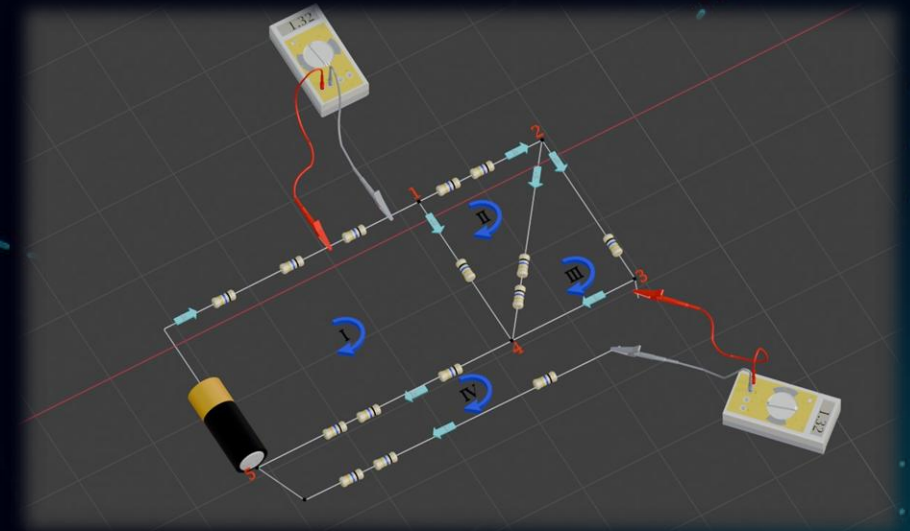
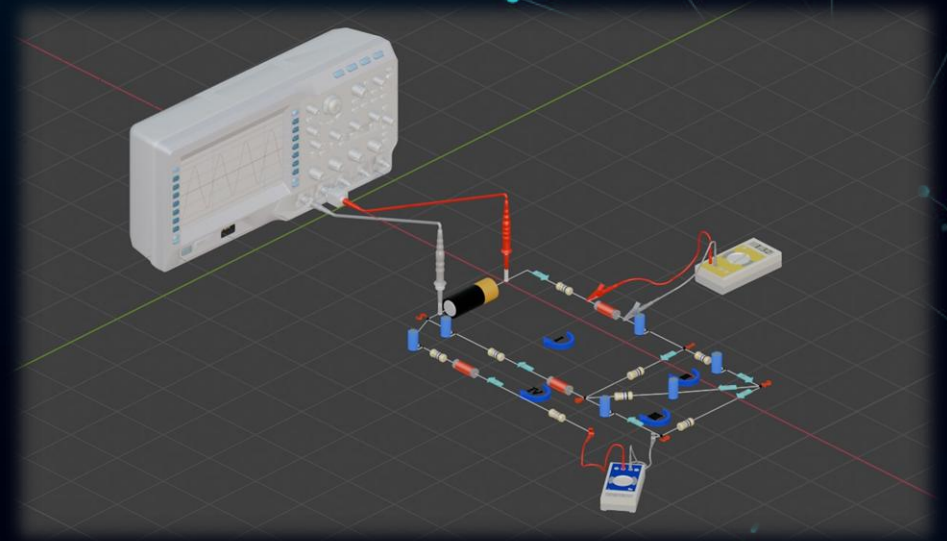
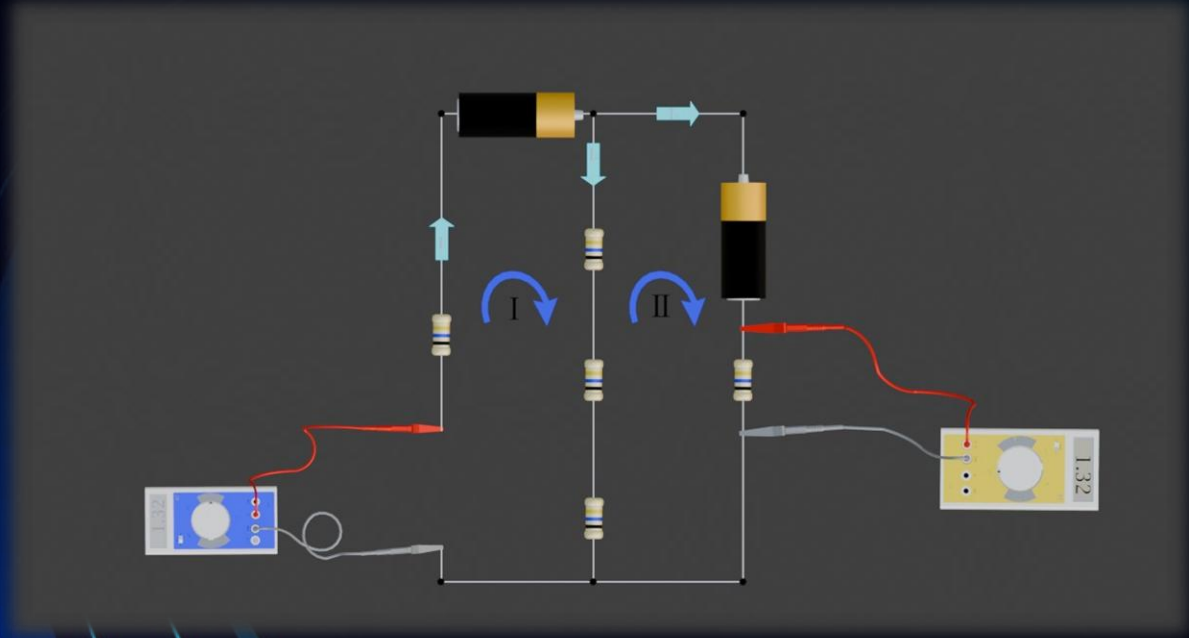
Combining existing 3D models in Blender.



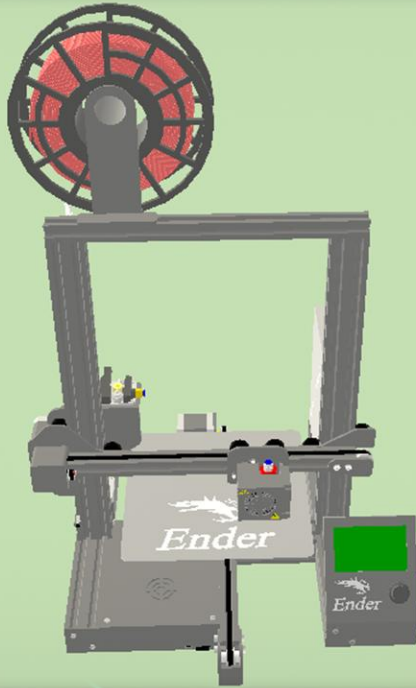
Combining existing 3D models in Blender.



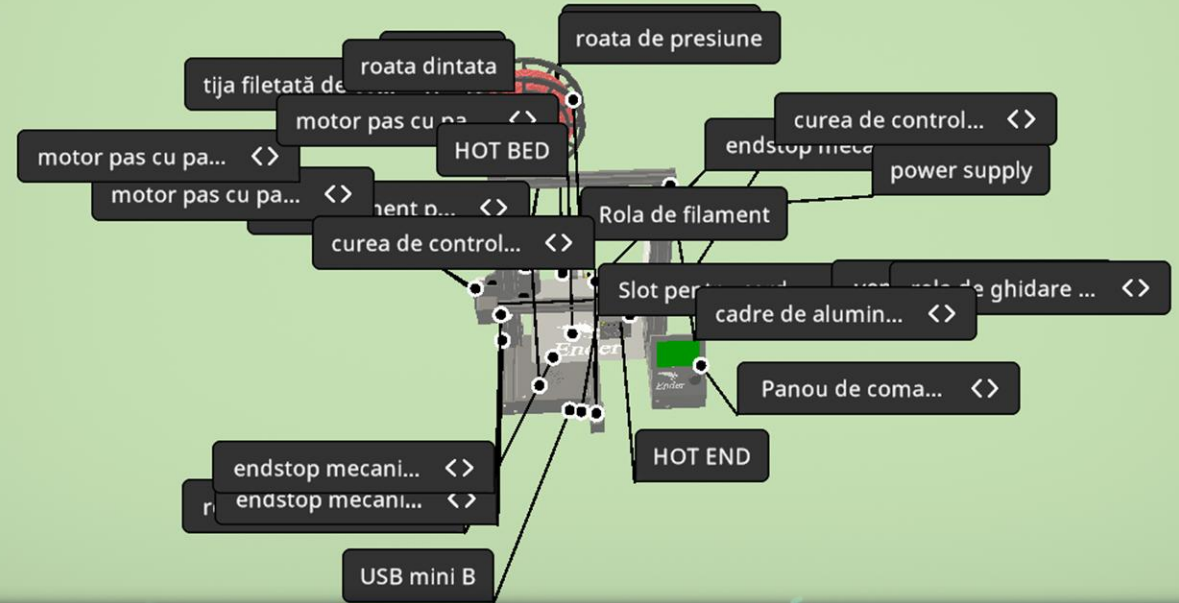
Combining existing 3D models in Blender.



3D Printer – Ender 3



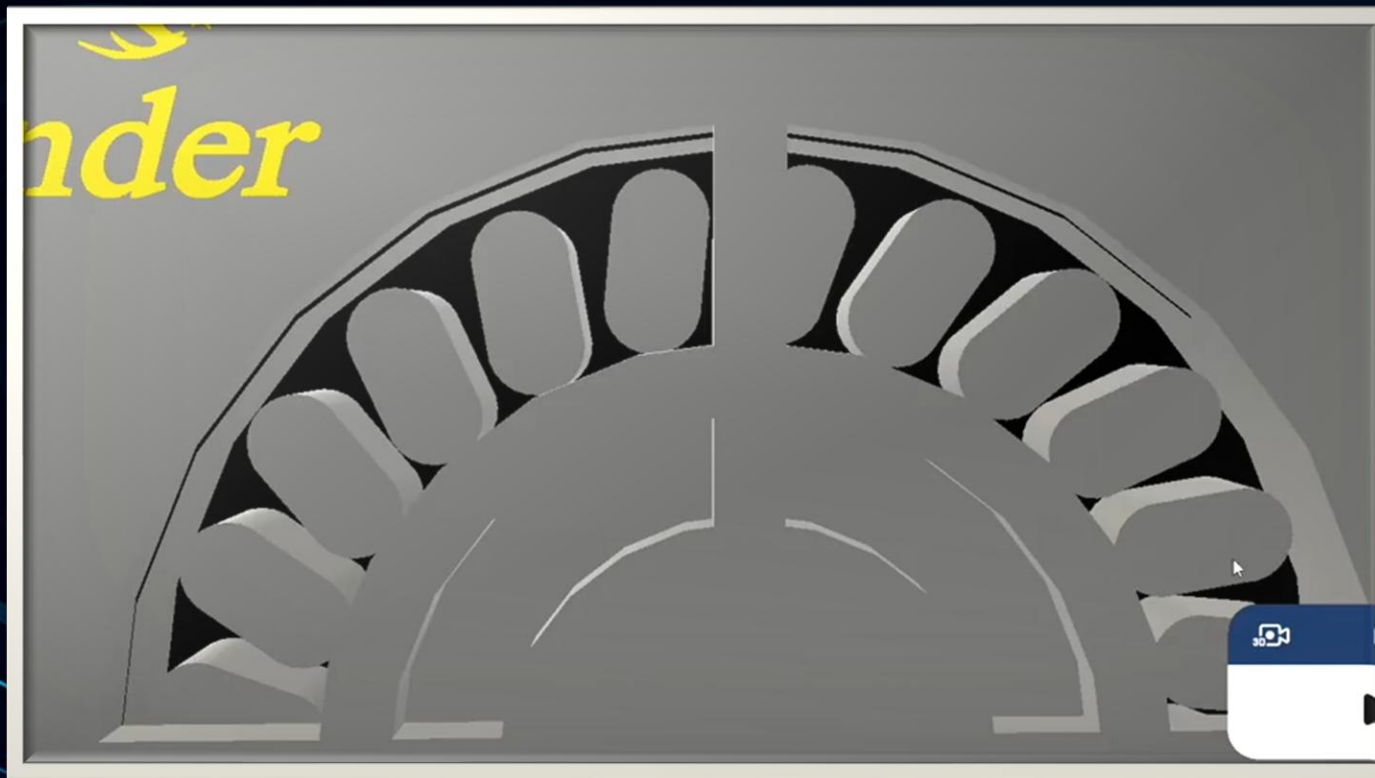
Annotations



Access the lesson!



3D Printer – Ender 3



Access the lesson!



Back to the team's
achievements

Personal 3D Creations

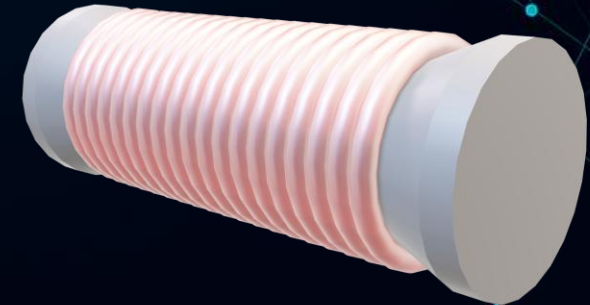
2 Pins



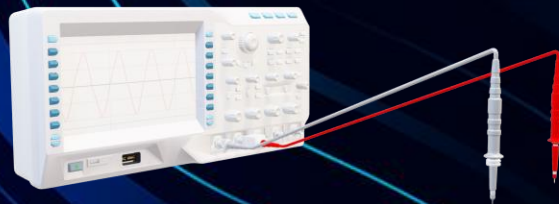
Capacitor



Inductor



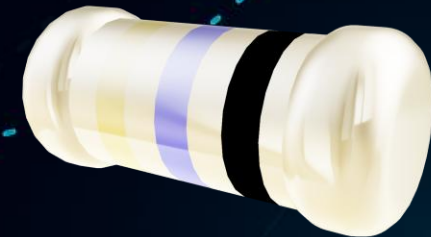
Oscilloscope



Single Pin



Resistor



**Back to the team's
achievements**

+ And many others

<https://core.eon-xr.com/Asset/SketchfabImporthttps>

Caz D. $f=12000$ Hz



4. CIRCUITUL RLC CAZD

👁 17 ani ★ 1

CAZ B. $f=5000$ Hz



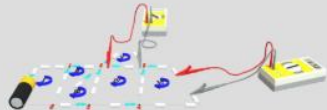
2. CIRCUITUL RLC CAZB

👁 13 ★ 1



CIRCUIT PARALEL 2.0

👁 38 de ani ★ 1



CIRCUIT ELECTRIC 2.0

👁 64 ★ 1



Caz A. $f=1000$ Hz



1. CIRCUITUL RLC CAZA

👁 15 ★ 1

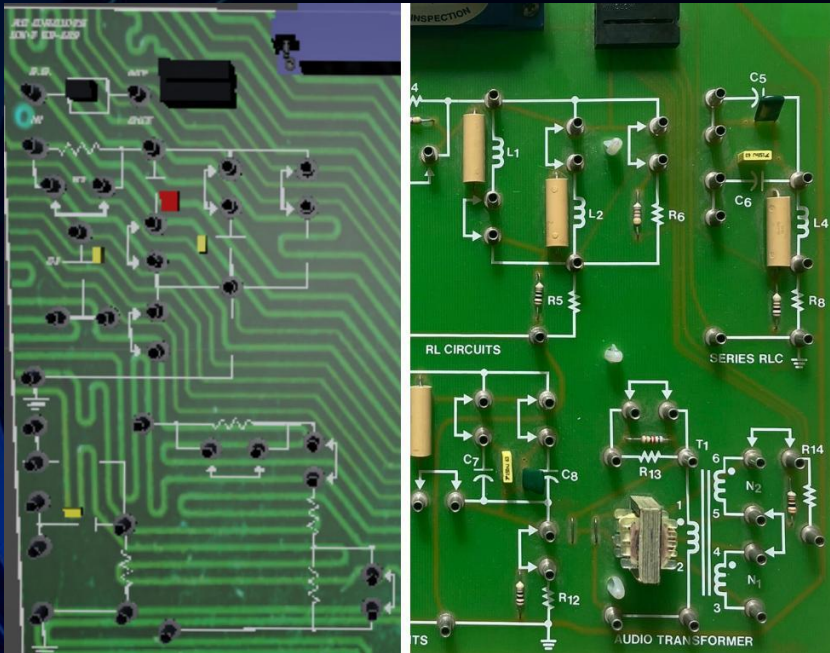
Caz F. $f=14000$ Hz



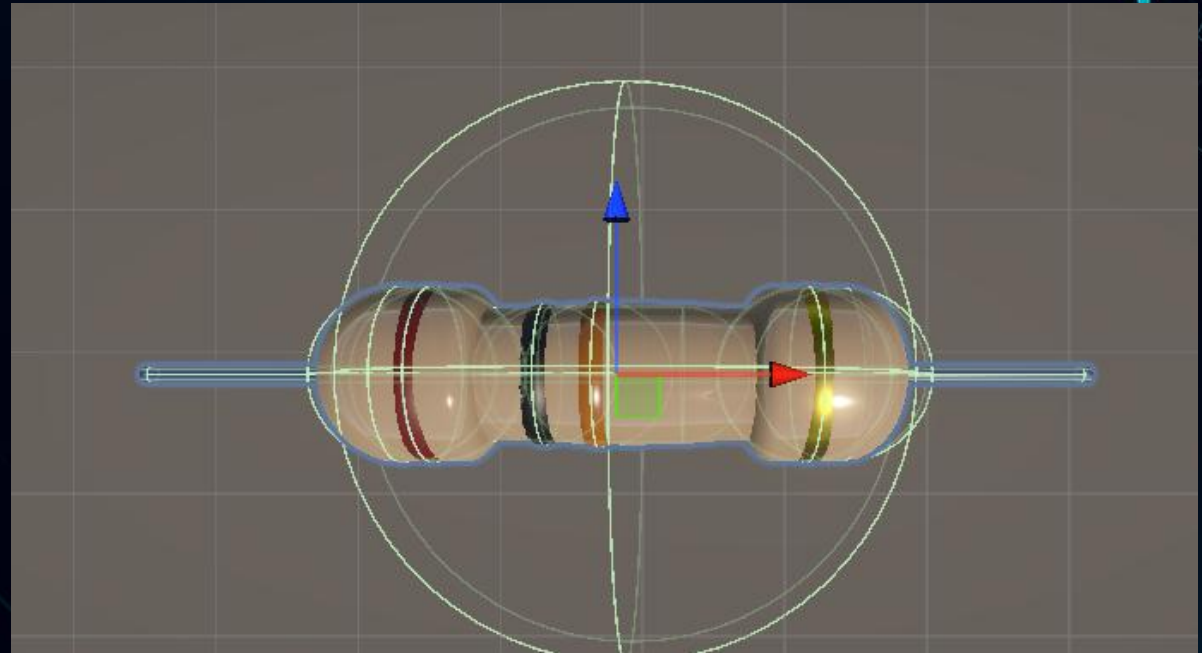
6. CIRCUITUL RLC CAZF

👁 19 ★ 1

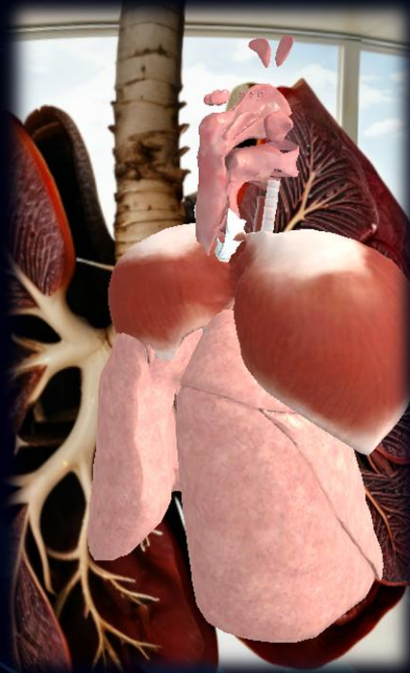
Educational circuit board



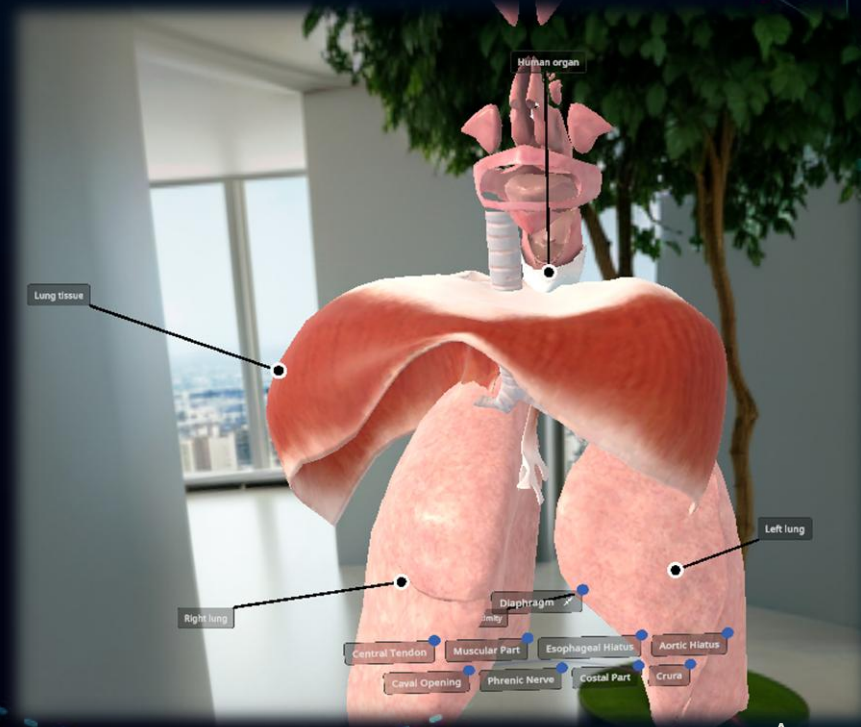
Functional resistor



Human Lungs – Anatomy



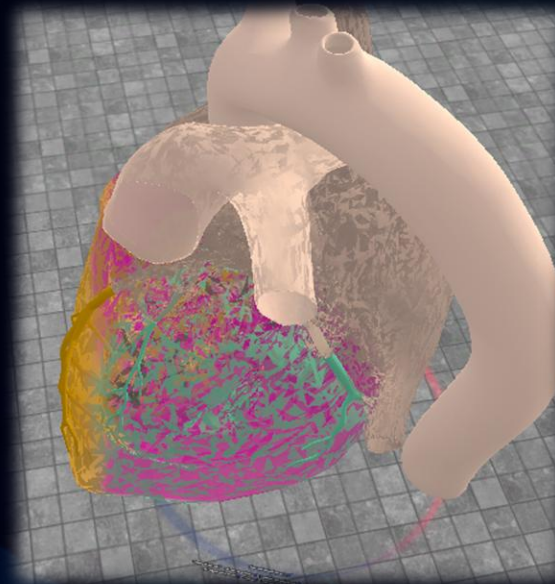
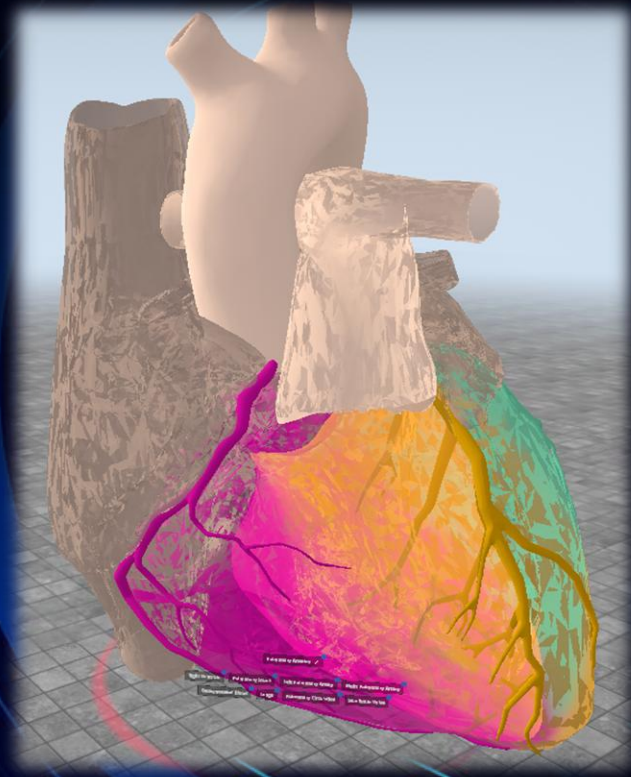
Annotations



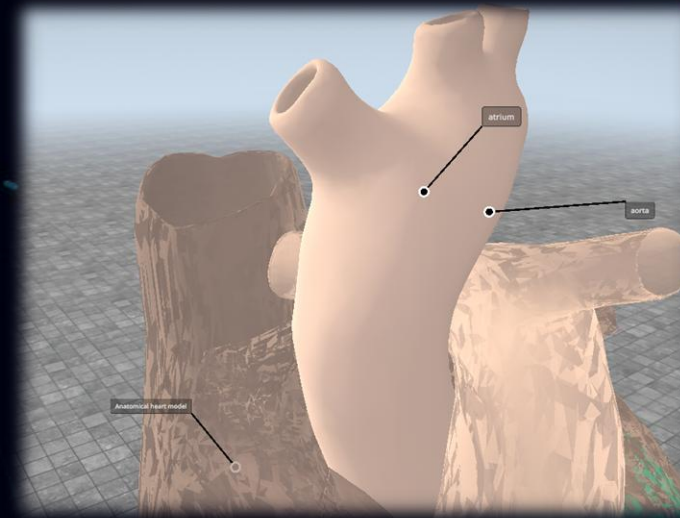
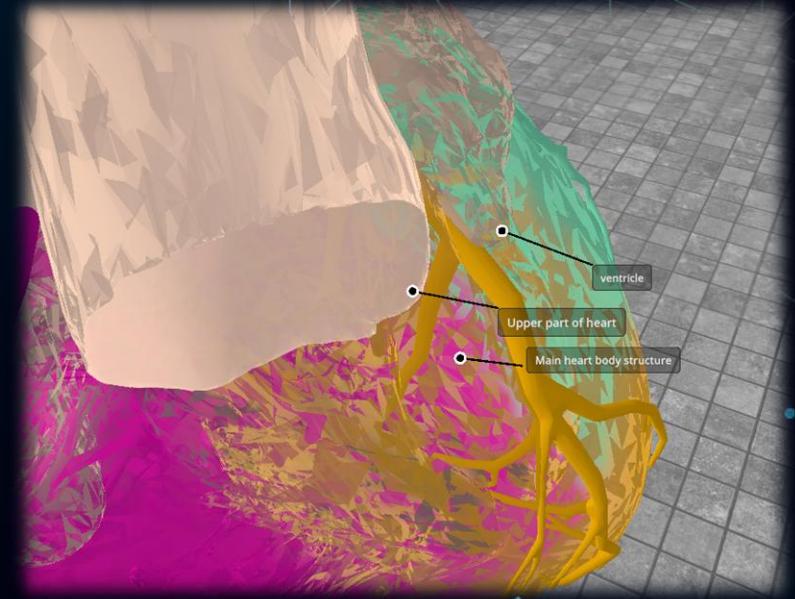
Access the lesson!



Anatomy of the Human Heart



Annotations



Access the lesson!





University of Oradea



Living Lab
VR@UO

Faculty of Electrical Engineering and Tehnology Information

Departament of Electrical Engineering

Special thanks to

RECTOR,

Prof.univ.dr.eng. Constantin Bungău

Vice-Rector

Prof. Univ. Sanda Filip

and to the

IT team of the University of Oradea,
especially

Eng. Cristian Artenie and



Eng. Cristian Tiurbe.

