

# VIRION

Virtual Reality  
Applied to  
School Education

## PHYSICS

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## PHYSICS VR EXPERIENCE – OBJECTIVES OF VIRION VR PROJECT

*“Electricity and Magnetism”*: Virtual Reality can help students to interact with virtual circuits and magnetic fields to comprehend electrical and magnetic phenomena more effectively.

So, when designing this experience, we decided to create this experience under the “*Scape-Room*” format, made with four different rooms inside a mansion.

There, the student must complete wit-tests related to electricity and/or magnetism in order to open each new room and advance in the experience

## PHYSICS VR EXPERIENCE INTERFACE



## PHISICS VR EXPERIENCE CONTENT

- Electricity room 1

To unlock the room's door and advance in the experience, student will have to complete the electrical circuit that blocks the door by integrating on it the 6 components that he will find scattered around the room:



- Electric cable
- Battery
- Bulb
- Switch
- Ammeter
- Fuse
- Voltmeter

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In a panel attached to the door he will find the technical information of each component once he takes it. Once the circuit is completed the door will unlock.



## PHISICS VR EXPERIENCE CONTENT

- Electricity room 2

In the next room, student will find a broken old radio. The will need to repair it by replacing the 6 damaged components in its electronic circuit by finding and inserting on the radio back the following elements that he will find around the room:



- Capacitator
- Valve
- Resistance
- Fuse
- Relay
- Transformer



Once repaired, the radio will start to broadcast a 4 digit code.  
To leave this room, student will have to enter this 4 digit code into the electronic door lock.

## PHYSICS VR EXPERIENCE CONTENT

- Magnetism room 1

To unlock the reinforced door of the magnetic room 1, student should locate the objects whose magnetic fields match in intensity with those of the 6 magnets locks on the door.

He will need to use the *gaussmeter* to measure the intensity of those objects magnetic fields and place them on their corresponding magnet position on the door.

Once all objects magnetism measured and placed in its adequate spot, the door will open automatically.





## PHYSICS VR EXPERIENCE CONTENT

- Magnetism room 2



Student will need to look around and find the switch that activates the old computing device placed on the table and correctly answer the 3 questions that he will discover on the screen.

Once correctly answered those questions, student will have completed the experience, and the last door will open, so he will then collect the diploma of achievement

