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2 minutes of reading



News

Training and Careers

How and why IFP School's Powertrains and Sustainable Mobility Center has developed an immersive virtual copy of the engine showroom for its students?

In these times of health crisis, the start of the 2020 school year has been rather complicated for many schools. [IFP School](#) is no exception to the rule. Several of our students have not yet been able to physically join the School to follow their classes. On a daily basis, this meant having to set-up a mixed tuition which would allow both on-campus and distance learning students to follow courses and practical workshops. For the lectures, several technical, educational and organisational systems have been put in place. But when it came to the practical workshops, things were more complicated! For example, how could we ensure that remote students got to experience the thrill of a "treasure hunt" organised on the recognising engine parts in the School's engine showroom?

A major challenge that we took up with the teams from the Powertrains and Sustainable Mobility Center was creating a virtual reality module! Let's go back in this article to the educational engineering and technical creation of this module.

Starting point: the visit to the engine showroom

At the beginning of the year, students in the Powertrains and Sustainable Mobility Center programs benefited from a one-day exploration of the School's engine room. Covering around 100 square metres, this room contains all the parts that make up a combustion engine: pistons, injectors, cylinder heads, etc.

Accompanied by a teacher from the Center, the students spend an entertaining half-day in the Center during which they must, in teams of 3 or 4, go on a sort of "treasure hunt" in order to identify the parts. At the end of this phase of discovery and exchange in small groups, they all debrief together with the teacher in order to clarify some points and go back in greater detail on each of the pieces. The objectives of this day are multiple:

First of all, through the playful aspect of the day, to create a team spirit in the class. Exchanging and discussing together, challenging each other, etc. helps create a group dynamic and cohesion that will be beneficial and useful throughout the year.

- A second objective is to place students from different schools on an equal footing: depending on their profile, some are very comfortable in this mechanical part, others much less so. The teacher then takes the time to explain again the function of each of the parts.
- Finally, this day is an opportunity for the teacher to present the educational path they will be following during the year (course content and speakers).

Living the experience remotely

This day is very important, both in terms of training and for the new class to build a team spirit. In order to give the same experience to the remote students, we have thought of and designed a virtual reality module with the teachers from the Center in which everyone could immerse themselves and look at the engine parts as if they were there in person. If they can't physically walk around the room, they can do so virtually behind their screen or in a virtual reality headset.

> Find out more (IFP School website) : [The three steps of designing the immersive module](#)

Virtual reality in the IFP School engine room
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Link to the web page :