

### **SCHOOLS AND DALLARA**

Dallara has always paid attention to the link with the territory, technology and formation. The Dallara Academy is an educational and exhibition center created in a structure with a bold design, in order to share and transmit - according to the idea of the founder Giampaolo Dallara - the heritage of skills developed in 50 years of activity and to make the visitors aware of Dallara history and cars.







## THE TERRITORY

"There is a desire to create a space of meeting and confrontation and make it available to the territory, a lively and open center of stimuli and interests".

Giampaolo Dallara





## THE BUILDING

The Dallara Academy, desired by Giampaolo Dallara, is spread over two floors connected by a large curved glazed ramp that can be explored on foot. On the ground floor there are spaces dedicated to welcoming the public and laboratories for schools, while the first floor houses the area dedicated to MUNER university and the auditorium.





## **OUR PROPOSALS**

**DIDACTICAL LABORATORIES** 

**GUIDED VISITS TO COMPANY DEPARTMENTS** 

**DISTANCE EDUCATION ACTIVITIES** 







## **DIDACTIC METHOD**

All our didactic proposals make you live an experience linked to the philosophy of "edutainment", that is to learn while having fun.

The activities are based on an interactive STEM methodology, which alternates moments of disclosure with questions, quizzes and games, to keep the attention of the students always alive.



## **DIDACTICAL LABORATORIES**

#### **Duration 3 h**

The package of Didactical Laboratories includes
workshop activities and a guided tour of the exhibition area. Students are taken
beyond the study of physics linked only to school experience, to directly involve
them in activities inspired by the three distinctive skills of the company:
design and production through the use of composite materials, aerodynamics and
vehicle dynamics. The students will discover firsthand the different materials, the
forces to which the cars and drivers are subjected to during races and
what is studied in a wind tunnel.







## THE THREE ROOMS

**AERODYNAMICS** 

**COMPOSITE MATERIALS** 

**VEHICLE DYNAMICS** 





## **AERODYNAMICS**

#### **WIND TUNNEL**

The experiment shows how the vertical load and the aerodynamic resistance of a wing change as its angle of attack and its ground clearance vary.

#### **AERO-QUIZ**

The experiment proposes a series of questions, with different degrees of difficulty, to test the knowledge in the field of aerodynamics.







## **COMPOSITE MATERIALS**

#### **MATERIALI ALLA PROVA**

L'esperimento mostra i diversi livelli di rigidezza dei materiali utilizzati nella costruzione del telaio di un veicolo.

#### **CRASH TEST**

The experiment shows how the choice of the material used for an impact structure affects the deceleration level of a vehicle in a crash and the energy absorption modalities.

#### **OVER THE LIMIT**

The experiment shows how the height of the center of gravity and the speed influence the behavior of a car when cornering.





## **VEHICLE DYNAMICS**

#### **DRIVING, WHAT AN EFFORT!**

The experiment shows the extent of the load on the brake pedal and on the steering wheel when approaching and during a turn.

#### **FEEL THE RYTHM**

The experiment shows the effect of springs and dampers on the vertical movement of a suspended mass.

#### **ON TRACK**

The summary experiment, in which the students will have to work together in groups to choose the best set-up for their car.







## **EXHIBITION RAMP**

After a short break, the teaching activity continues with a guided tour of the exhibition ramp which houses the most significant cars in the history of the company.

Through cars, some topics dear to the company will be addressed: history, distinctive skills, people and formative developments.



# GUIDED TOUR TO COMPANY DEPARTMENTS

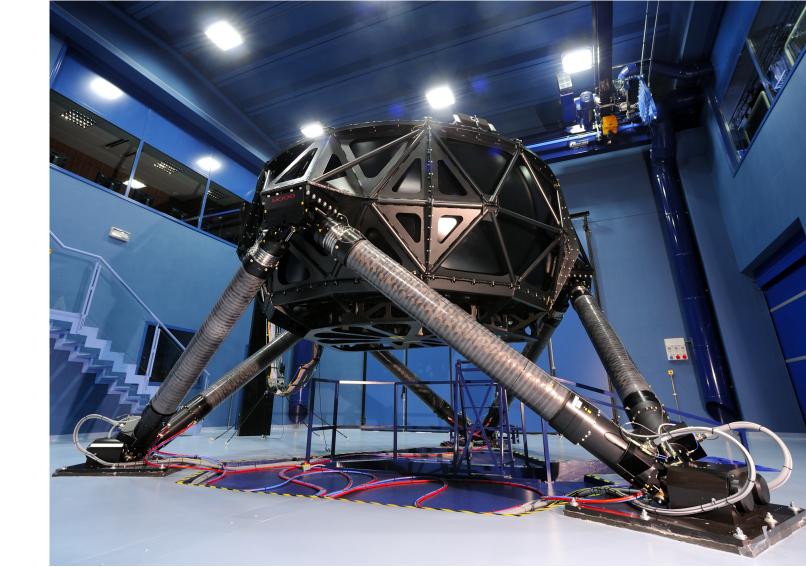
Visit Duration 1 h 30 min

To complete the experience it is possible to visit the corporate departments of Dallara Automobili, in order to discover how a Dallara is born:

Visit to the Professional Driving Simulator
Visit to the Aerodynamic Department
Visit to the Car Assembly

Visit to the Dallara Advanced Research center on Composites







## **DISTANCE LEARNING ACTIVITIES**

#### **Duration 2 h**

In order to guarantee middle and high schools to continue to discover this reality even at a distance, the Dallara Academy has developed digital training proposals, digitally replicating some of the experiments that can only be used in person.

All activities are performed synchronously and can be enjoyed directly by the class group or, in case of distance teaching, with multiple users connected individually.

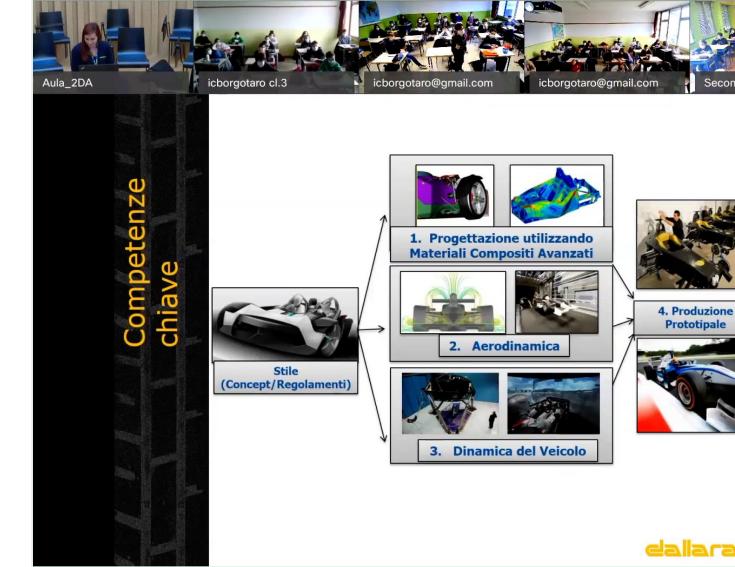


## **DIGITAL PROPOSALS**

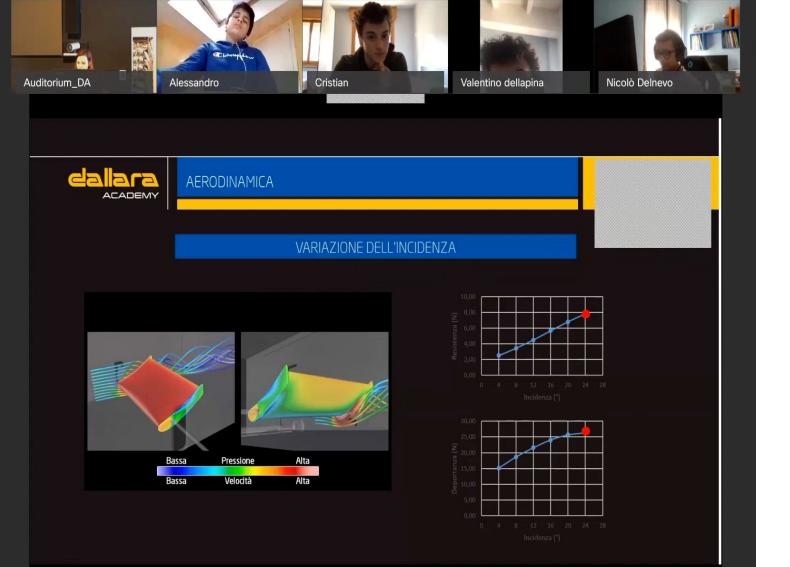
**DIDACTICAL LABORATORIES** 

**DALLARA PRESENTS ITSELF** 

**VIRTUAL TOURS** 







### **DIDACTICAL LABORATORIES**

Digital laboratories allow students to discover some fundamental aspects of the automotive world, through frontal teaching moments alternated with videos, quizzes and students' active participation.

Specifically, the activity allows students to discover composite materials, the properties of carbon fiber, the aerodynamic forces that affect the performance of a car and how to improve the behavior of a racing car through some vehicle dynamics concepts.



# DALLARA PRESENTS ITSELF

It is a moment dedicated to the history of the company, its distinctive skills, its people and educational developments.

Subsequently the virtual tour continues with the explanation of the exhibition ramp, where the most significant cars for the company's history are described.







# VIRTUAL FACTORY TOUR

Discovering the aerodynamics department,
the professional driving simulator, the research center on
composite materials and the Dallara Stradale
assembly factory.





AGE 11-14



WORKSHOPS-GUIDED TOURS

AGE 14-19





WORKSHOPS-GUIDED TOURS-TECH LAB

POST DIPLOMA







COURSES-WORKSHOPS

UNIVERSITY







COURSES-WORKSHOPS-STAGE

POST-GRADUATE SPECIALIZATION







COURSES-WORKSHOPS-STAGE

# FORMATION IN THE TERRITORY

The territory of Valceno and of the whole MotorValley has as its objective
the dissemination of technical-scientific culture and the
collaboration between schools, training institutions and companies.
With this in mind, the collaboration between various interlocu
tors has led to the creation of activities, courses, internships and workshops for
various groups of students.



## **INNOVATION FARM**

The technical - professional pole of mechanics and composite materials in

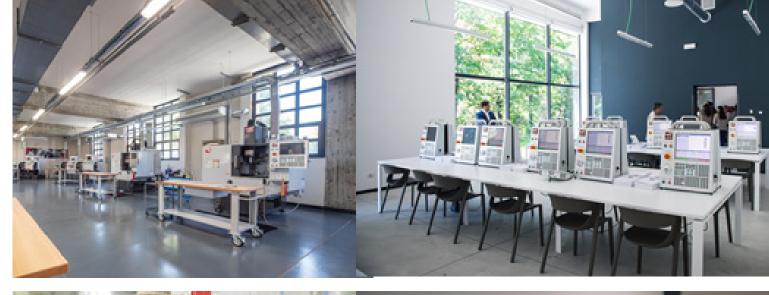
Fornovo di Taro (PR) is a reality that promotes various training projects: robotics

workshops, CNC machining, training on 3D printers and

processing of composite materials.

The center is located in a technologically advanced structure, with multimedia classrooms and bases its projects on the concept of Industry 4.0..









## INFO E COSTI

Activities require reservations.

- Didactical laboratories in presence: 12€ per participant teachers and accompanists enter for free)
  - Factory in presence: 15€ per student
- **Digital laboratories:** 160€ per class (maximum 25 students)
- Dallara presents itself + Digital laboratories: <del>300€</del>/255€

It is possible to combine various experiences with each other and create ad hoc paths.









## **CONTACTS**

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