



## FORMULA SAE ITALY 2021

### Technical Inspector Description

Before being approved and having access to the dynamic events, each car has to pass technical inspections, generally called “techs”, by verifiers which check that cars are conformed to the rules, especially the those related to the security of the drivers.

Once being approved cars are refueled to be then put on the **tilt table**, a platform which tilts the car on both sides until 60 degrees to certify if there is any liquid loss.

During the **noise** test inspectors check that the engine noise level does not exceed 110db. The last “tech” is the **brake** test. After the acceleration the car has to be able to secure all four wheels at the same time without switching the engine off

The electric cars also have to pass the **rain** test. During it water is squirting on the car in all directions for 120secs, simulating a rainfall but there is no direct water jet with high pressure on the car.

For each “tech” passed the teams receive a sticker which has to be stuck on the front of the car; once each team has collected all the stickers the car can access the dynamic events.

### Commitment:

- ✓ During the event: at least two days of presence, mainly Thursday and Friday, from 8.00am to 7.00pm and, if it is possible, support is needed on the track on Saturday and Sunday from 8.00am to 7.30pm.

### Technical Inspectors Job Description Class 1C

Following, a few necessary features of the profile of the technical inspectors of Class 1C cars:

- ✓ Engineering Degree
- ✓ Experience in the Motorsport world
- ✓ Car repair shop and mechanical workshop experience (preferable)
- ✓ Designers with practical field experience
- ✓ Participation to past Formula Student events

It follows that these inspectors need to have at least one of these skills:

- ✓ Chassis system: testing experience or realization of suspension/brake/transmission system. Suspensions tuning
- ✓ Engine system: bench or track test experience on engine system
- ✓ Experience of inspection on safety mechanical parts
- ✓ Experience on mechanical and electrical systems failure diagnosis
- ✓ Experience as sport and technical verifier/commissioner CSAI
- ✓ Experience in the Motorsport world



### Technical Inspectors Job Description Class 1E/1D

Following, a few necessary features of the profile of the technical inspectors of Class 1E cars:

- ✓ Electric/Electronic/Automation Engineering Degree
- ✓ Electric/Electronic lab measurements experience
- ✓ Electric/Electronic device design experience
- ✓ Participation to Formula Student events
- ✓ Experience on high voltage systems and/or vehicle wiring harness
- ✓ Experience of inspection on safety mechanical parts
- ✓ Experience on electrical systems failure diagnostic
- ✓ Experience as technical scrutineer for CSAI/ACI Sport

### FOCUS ON THE DRIVERLESS CLASS

- ✓ The event, like the others, will be divided in static events and dynamic events
- ✓ The cars which will take part in the DV event, won't have the driver also during the technical inspections. (For example belts won't be checked)
- ✓ One only panel of judges is planned for the Design Event. The design of the car won't be separated from the autonomous system. The evaluation of the design will focus on this last aspect even if few points will be also given to the design of the car.