CHARGING AREA/ACCUMULATOR WORKPLACE LOCATION:

Location: G3 garage

Hours: Same as official site hours.

The charging of tractive system accumulators and all energized electrical work must occur exclusively in the charging area. No more than four team members of an individual EV team are allowed to be in the charging area at the same time; members must have dynamic passes. Only charging devices marked during E-Scrutineering may be used. Accumulators must be removed from the vehicle and on the accumulator hand cart when charging. A team member must always stay with the accumulator during charging. The team member supervising the accumulator charging should have the necessary knowledge to react appropriately if any problems occur.

Charging power in the charging area will be 125V or 208V, single phase, AC with circuit breakers at 20A. 120V power will be available through NEMA 5-20 receptacles and 208V power will be available through an EVSE with a J1772 connector. Teams should be aware that the continuous current of a circuit breaker installed in an application is dependent on multiple factors and typically the continuous current is ~80% of rated current. Teams will be limited to a single circuit. Teams are responsible for providing any electrical cords needed to connect your charging equipment to main power receptacles. Outlets are distributed throughout the charging area but may not be directly next to the accumulator.

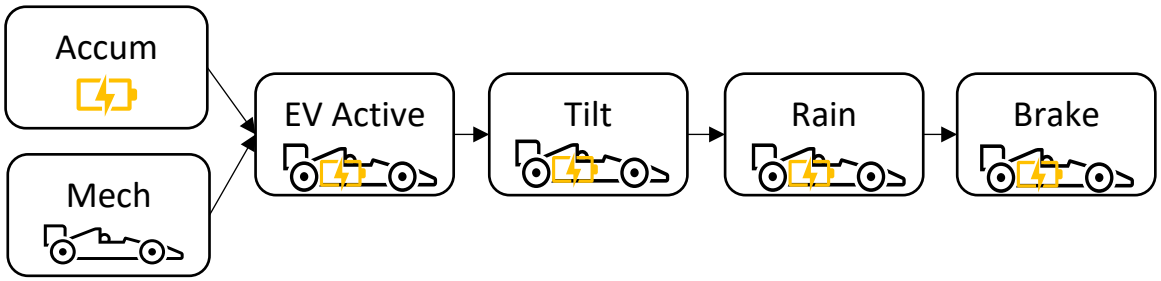
Each team will be assigned to a roughly 10’ x 10’ work/charging area. Each bay will be equipped with an 8’ long table and 2 chairs. Work/charging stations will not be permanently assigned; they are on a first serve, first come basis when team enters tent.

NOTE: Only mechanical work that does not involve the energized electrical system or accumulators may be performed in the team’s paddock. Under NO CIRCUMSTANCE may a team open any energized electrical system or accumulator container in the paddock.

ELECTRICAL SCRUTINEERING

CHIEF OF TECH: Danny Bocci

LOCATION: G3 Garage



Electrical Scrutineering covers 2 steps of the tech process for an EV car: Accumulator and EV Active. Teams are encouraged to take their vehicle to mechanical scrutineering while the accumulator is at accumulator scrutineering.

Technical Inspectors will mark or seal various different approved parts (i.e., insulation monitoring device, accumulator containers, energy meter, etc.). The car can be disqualified from any dynamic event by using unmarked parts or substituting marked parts. Parts with broken seals are equivalent to being unmarked. Broken seals can only be replaced by a technical inspector.

Accumulator scrutineering will inspect the accumulator or the vehicle outside of the vehicle and demonstrate the charging ability of the accumulator. Entry to the accumulator scrutineering will be based on the EV tech number. When your number is next, bring your accumulator to the entrance of EV Technical Inspection.

Note: It is the team's responsibility to keep track of how quickly teams are going into Tech Inspection. We recommend you designate a team member to monitor the entrance of the Tech building, where they may simply ask the event staff "which number is next?" The lowest number present will be admitted; if you are not present when called, teams with higher numbers will be permitted to enter before you.

TO ACCUMULATOR SCRUTINEERING YOU MUST BRING:

- Accumulator charger to be used during the event
- All accumulator containers to be used during the event (not installed in vehicle)
- Data sheets for all used parts in the tractive system
- Copy of the ESF
- Accumulator Container Hand Cart
- Tools and protective equipment required to open accumulator
- Print-out of rule questions (if needed)

EV active scrutineering will test the safety systems of the vehicle. Teams will be admitted into EV Active scrutineering on a first come first served basis and must have passed both accumulator and mechanical scrutineering.

TO EV ACTIVE SCRUTINEERING YOU MUST BRING:

- Vehicle with accumulator installed
- Additional tools/devices necessary to prove functionality of safety systems
- Tools to remove driven wheels and jack stand for vehicle

RAIN TEST (EV ONLY)

EVENT CAPTAIN: Danny Bocci
LOCATION: West of G3 Garage

All EV cars must pass the rain test. The car must pass accumulator scrutineering, mechanical scrutineering, EV Active scrutineering and Tile Table before the rain test can be conducted. During the rain test, the tractive system must be active, and the drive wheels must be a minimum of 10cm off the ground or removed from the vehicle. It is not allowed to have a driver seated in the car during the rain test. Cars will be exposed to 2 minutes of water spray then monitored for 2 minutes before test is complete. Once passed, teams/car will receive approved tech sticker.

Teams should be prepared with the necessary equipment to safely keep the driven wheels off the ground.

Energy Meters Download (EV Only)

Chief: Danny Bocci
Location: G3 Garage

The energy meter will be installed during accumulator scrutineering. The proper function of the energy meter will be evaluated during the EV active scrutineering. EV teams must have an energy meter installed in the vehicle to compete in dynamic events.

Teams must provide energy meter data for each dynamic event. To download the energy meter the teams must bring their vehicle to the energy meter download location in the northeast corner of the G3 garage. The energy meter download connector must be readily available to allow the data to be downloaded. Once downloaded the data will be made available to the team if desired. Teams may choose to have their energy meter downloaded at any time and are encouraged to do so after each dynamic event.

The energy logs data anytime it has GLV power, and the TS voltage is greater than 50V. It will hold ~3.5 hours of data after which it will stop logging. It is the team's responsibility to manage the recording capacity of their energy meter by having it downloaded and cleared. Lack of data due to a full datalogger or failure to provide the required inputs to the energy meter will be treated as a violation.