



Regional Race Day at Canterbury

Venue: Canterbury A&P Showgrounds

Saturday 28th October

Beforehand

Please check your design against the Technical regulations to ensure compliance. Ensure your battery is fully charged, your battery kill switch is fitted and working, marked with the sticker provided and your team is wearing the appropriate safety gear.

I attach the EVelocity Health and Safety Plan. Schools are to prepare and file their own (Level 3) RAMs with the administration of their school.

Race Day

Drop off your vehicle(s) in the pit area and park in the area designated 'Parking' on the map below. In addition, or as an alternative, teams may erect school tents on the grass within the Pit area.

Scrutineering will happen in the Pit Area. We ask that you drop off your vehicle before 8.30am and then take your car and trailer into the 'Parking Area'. Your vehicles will be marshalled into a coned area for events.

The day will start with a briefing for officials and volunteers followed by one for team members.

All vehicles should have their Energy Meters connected between the battery and the controller. These can be zeroed by removing and reinstalling the fuse in the holder between the batteries.

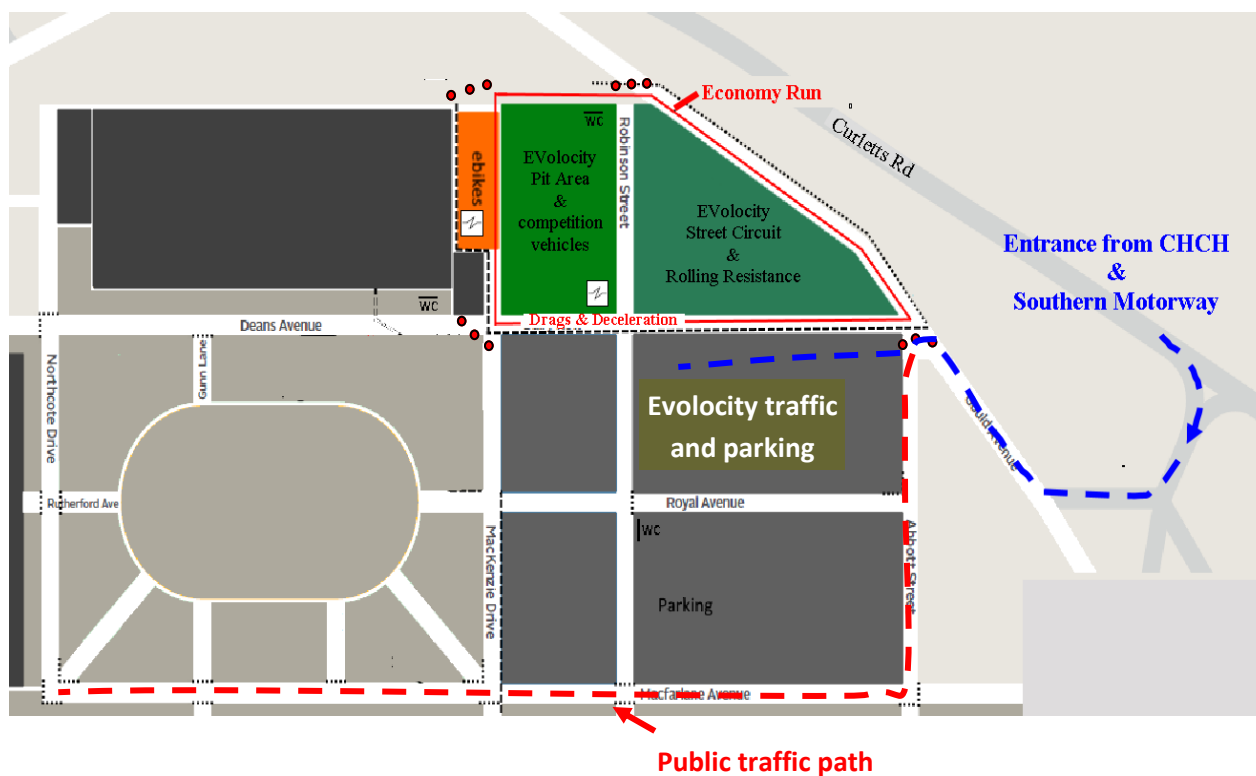
Key times: *(these may be subject to slight alterations)*

Time	Event	Location
From 8.00am	Scrutineering	Grass area of the Pits
10.00am	Officials and volunteers briefing	Start of Drags
10.15am	Team briefing	Start of Drags
10.30am	Event 1: Head to head Drag races & Stopping	On straight as shown
11.10am	Event 2: Street circuit	In sealed area shown
12.00pm	Event 3: Economy Run	Start of Drags
1.00pm	Rolling Resistance	Marshalling from Pit area
2.00pm	Prizegiving	Pit area

Venue Layout:



EVelocity Regionals - Traffic flow from Curletts Rd:



Evolocity Run sheet

Scrutineering will occur from 8.30. *Please be as early as you can. It will help if you have personally critiqued your build against the appropriate Technical Regulations.* Non compliant vehicles will **not** be able to participate.

Race numbers, safety stickers, logos and crib sheets will be issued to vehicles that pass scrutineering.

All teams should ensure their batteries are at maximum charge ready for events

8.00am Scrutineering:

Teams will wait with their vehicles in the Street Circuit area from 8.30am. They will be scrutineered, given race numbers, safety stickers, logos, innovation crib sheets completed. Scorers will enter race numbers.



Location: Pit area

Finish: 10.00am

10.00am Briefings:

Volunteers briefing - Luke Pickering

Team members briefing - Matt Stanford

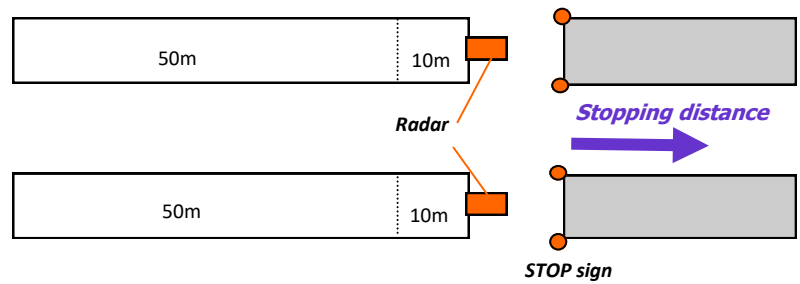
***** Performance Category starts *****

Teams should have their batteries fully charged for the start of this part of the competition.

10.30am

Drag Race

Layout:



Competitors should drive as fast as possible until they pass the STOP sign and decelerate as quickly as possible

Location: Grid on main straight.

Distance = 50m + 10m

Braking distance measured from the STOP sign

Finish: 11.00am

Event notes:

In this event 2 vehicles will start on parallel tracks. Bikes will run first

Fastest speed

Police radar units will measure the vehicles speed just after the 50m mark. This speed will be recorded by the event recorder.

Stopping

The stopping distance will be measured from when braking commences at the STOP sign. The vehicle must stop within the lane width (2.2m). The measure of this deceleration will be calculated by;

$$\text{Deceleration} = \frac{(\text{speed})^2}{(2 \times \text{Stop Dist})}$$

This deceleration will encourage teams to go as fast as possible and stop as quickly as possible.

Category winners (2)

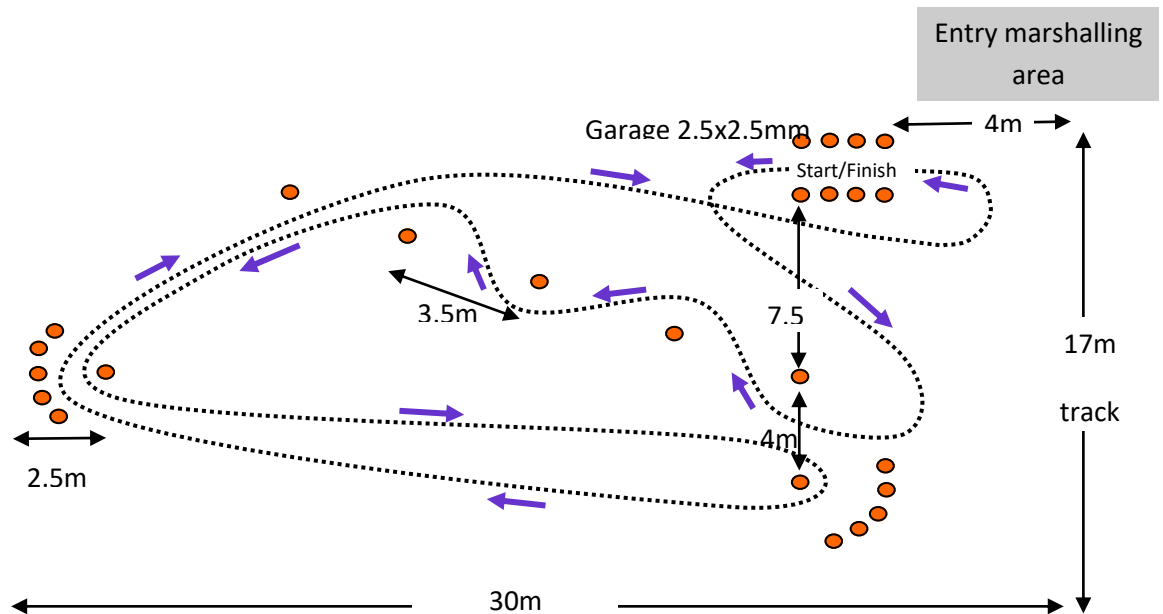
Fastest: Teams will be ranked with the lowest ranking for the fastest vehicles.

Stopping: The highest deceleration will be assigned the lowest rank

11.10am

Street Circuit

Layout:



Location: The large parking space between the pits and the track

Finish: 11.50am

Event notes:

Vehicles will be marshalled along the track from the marshalling area in single file into the grey area in the above diagram. Bikes will run first.

Vehicles will start from being parked in the garage.

Each vehicle must finish parked back within the bounds of the garage.

The time will be recorded from start to being stopped again within the garage. Should a vehicle not do this it will have to be driven around the garage, re-enter it and stop.

Category winner:

Teams will be ranked based on shortest time. Lowest ranking wins

12.00pm Economy Run

Location: Circuit as shown

Finish: 12.40pm



All vehicles must have an energy meter installed ready for this event. Energy drawn from the battery will be measured on the meter in units of Watt.Hours (W.hr). The higher the number, the greater the energy used.

Contestants will have used their batteries for the same events up until this point. After ensuring each energy meter has been zeroed by pulling the fuse (or recording the starting W.hr if not), the starter will release the vehicles at approximately 10s Intervals.

Teams should be prepared to have all of their team members drive at least one lap of this event.

The event will start with the vehicles lined up for a Le Mans start. Drivers will be given a 'Smart token' and will start the event by swiping this over a sensor pad. This will record their start time. On completion of each lap the driver must swipe the token again before handing it on to the next driver in the team to drive the next lap. Teams must record the number of laps they do to a total of 8 laps. They will then have swiped the token over the pad once for the start and then at the end of each of the 8 laps.

The score for this event will be calculated by:

$$\text{Score} = \text{Energy used} \times \text{Time}$$

Category winner:

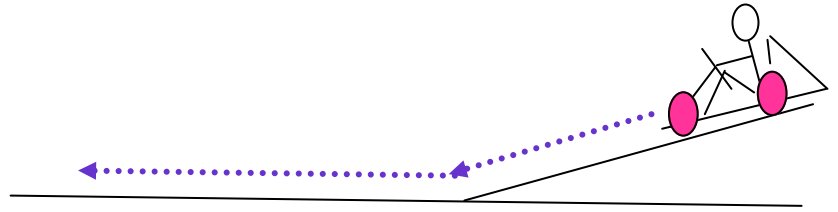
The winning team with the lowest score will be given the lowest ranking

After this each team should remove the chain from their drive ready for the Rolling Resistance Challenge

1.00pm Rolling Resistance

Location: Street Circuit area

Finish: 1.30pm



Entrants to line up in the Street Circuit marshalling area with drive chains disconnected.

The Rolling resistance will take off from a mark on the inclined ramp. The front of the vehicle must be behind the mark and the measured distance will be taken to the front of the vehicle when it rolls to a stop.

Category winners:

The winning team with the longest rolling distance will be assigned the lowest rank

Note:

Remaining categories:

- The Innovation, Report, Show and Evy Awards will be judged at the National event on Saturday 2nd December
- Entries for the Report, Show and Evy Awards will be called for immediately before the National event
- The Nationals will be held at the same venue.

2.00pm Award Ceremony