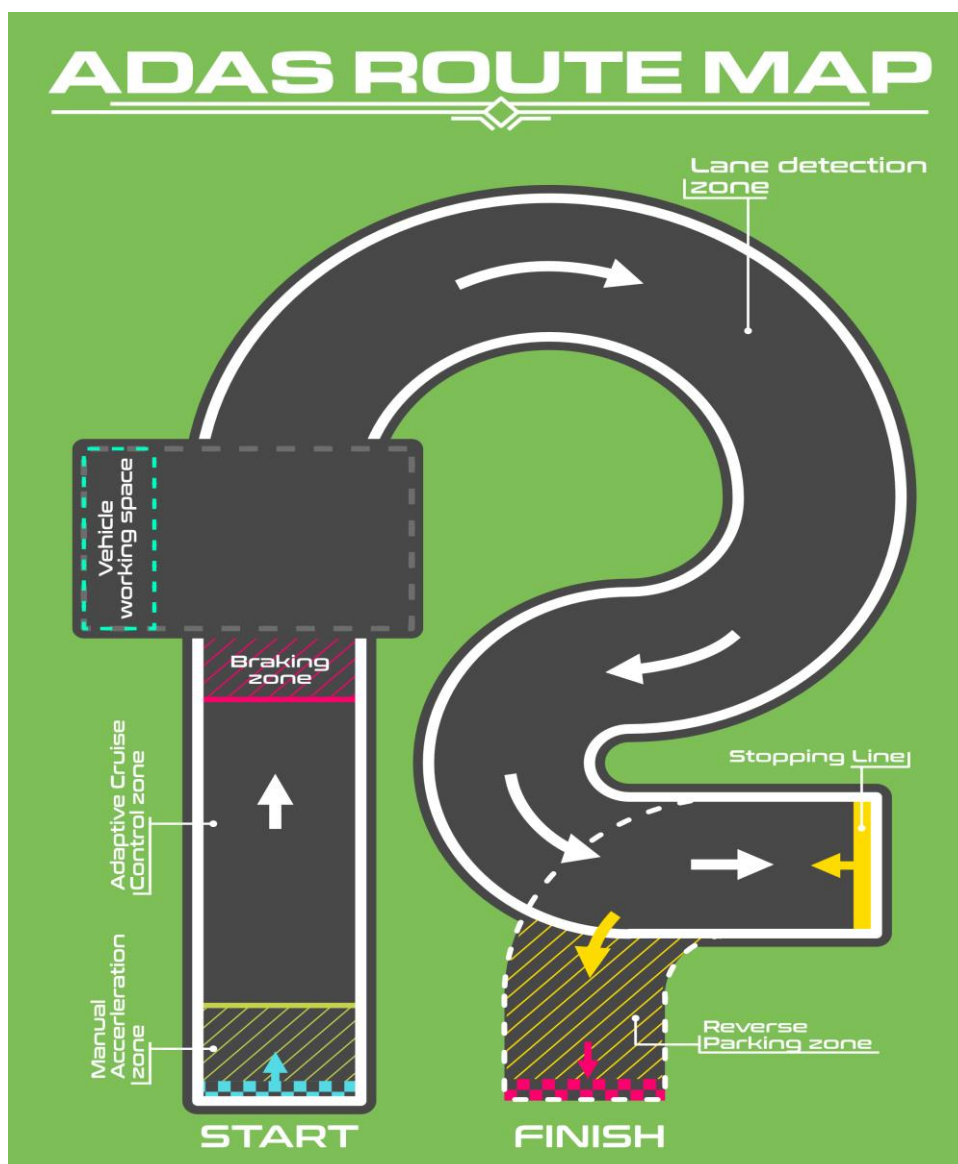


AUTONOMOUS DRIVING ROUND GUIDELINES

AUTONOMOUS DRIVING ROUND:

Autonomous driving round is an exclusive dynamic round in SEVC. The rules and guidelines are proposed in this document. Teams are instructed to follow and take necessary actions accordingly.

ROUTE MAP FOR AUTONOMOUS ROUND:





GUIDELINES:

The Autonomous driving round has three special tasks:

1. Adaptive Cruise Control
2. Lane Changing
3. Reverse parking zone

ADAPTIVE CRUISE CONTROL:

- In this task, teams are allowed with one driver who will be driving the vehicle.
- A start mark will be there on road for knowing from where to start.
- From start mark to the next mark, driver is allowed to press the accelerator pedal manually.
- From second mark, the driver should release the accelerator pedal, so that Cruise control mode will be ON.
- Till the braking zone, driver should not keep legs on any of the pedals.
- The third mark is braking region. Here the rider should press the brakes so that the Cruise mode should get released and the vehicle should stop within the maximum stop mark.

VEHICLE WORKING SPACE:

- In this place, teams are allowed to check their vehicle and prepare the vehicle for the next task.
- Driver should get out of the vehicle once the vehicle reaches this zone.



LANE CHANGING:

- In this task, drivers are not allowed inside the Vehicle.
- Lane changing marks will be there on the road along the curve path of the roadmap.
- Cones will be there on the false lane, so teams can use the cones as obstacle reference.
- Hitting cones will lead to penalties. If lane change is not happening, It will lead for the second attempt.
- If the Second attempt fails, teams will lose their opportunity.
- If any breakdown happens on this lane, then 4 team members are allowed to take the vehicle out of the zone thereby resulting in the loss of attempt for the team.

REVERSE PARKING ZONE:

- After completing the lane change zone, the vehicle should start for reverse parking zone.
- In this zone also the drivers are not allowed inside the vehicle.
- Near the parking Zone, cones will be placed as obstacles.
- The vehicle should park by avoiding the obstacles.
- Cone hitting may lead to penalties.
- If the vehicle fails, there will be a second attempt.
- If the Second attempt fails, teams will lose their opportunity.

DETAILS OF THE OBSTACLES:

- Cone height - 750mm or 29 inches.
- Cone Color – Orange.
- Sign Board for Stopping region detection or braking region detection - yellow colour.



Fig 1. Cones as Obstacle



Fig 2. Stopping Sign Board

NOTE:

- Team Captain and driver will be accompanied to show the track physically before the round starts on the dynamic event.
- Teams participating in this round should complete all the tasks in one stretch.
- Teams should ensure that the manual systems in the vehicle are not damaged or hampered due to the installation of components for autonomous activity. These components can also be detachable and can be installed and put into effect only during the autonomous driving round.