2024-05-09 Racing Working Group Meeting #4706

pojenwang started this conversation in **Working group meetings**

pojenwang on May 9 Collaborator edited

Administrative

Previous Meeting Minutes

Attendees

- Po-Jen Wang (AWF)
- Mitsudome-san (Tier.IV)
- David Walmroth (Open AD Kit / Pix-Moving)
- Jack Silberman (UCSD)

Minutes: Po-Jen Wang

Topics

Autonomous Karting Series (AKS) Competition

- AKS competition website
- The competition is coming up in less than two weeks. The team has been working hard preparing for the racing though there's still a list of tasks that need to be completed
- We spent a lot of effort making sure we comply with the safety requirements of the competition:

1. Remote Estop that applies max brake and cut power to the drivetrain
2. Estop triggered when RC controller disconnect
3. Deadman switch requirement was removed, this rule that requires active hold on a switch was not clear in the first place

- For the reactive category, track detection is achieved with vision-based grass and cone detection. It generates 2D Lidar format data that can be fused with Lidar data.
- Upgraded the grass field models in the simulator and now we are using the simulator to test the software pipeline for the reactive race

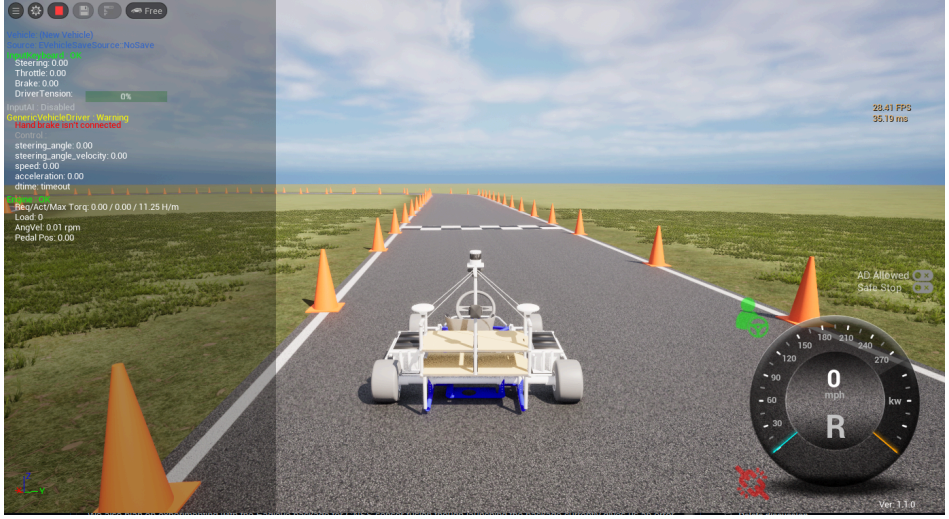
Category

Working group meetings

Labels

meeting:racing-wg

1 participant



- Track detection demo on the AV4EV Sim
- We are working on the gap follower planner which shall be completed shortly.
- For the pre-mapped category, our current GNSS setup does not seem very reliable. We are experimenting with a Fix-Position Vision RTK2 sensor. This sensor achieves localization with GNSS, IMU, and visual odometry
- Our backup solution is to utilize particle filter on the detected track boundary to achieve localization. Though we are missing the odom message and we are writing a driver for that
- We also plan on experimenting with the Eagleye package for GNSS sensor fusion though launching the package currently gives us an error

Other topics:

- AWF Work Group overview: https://autoware.org/join-a-work-group/

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0 comments