The 2nd Japan Automotive AI Challenge 2020
Details on Applications for the Control Category

From 3rd, March 2020, accepting applications to participate in the Control category of the 2nd Japan Automotive AI Challenge. These applications constitute the qualifying round for that category of the event, and the eight teams (not fixed) with the best simulation results will move on to the main competition in June.

■■■■ Application Process ■■■■ revised

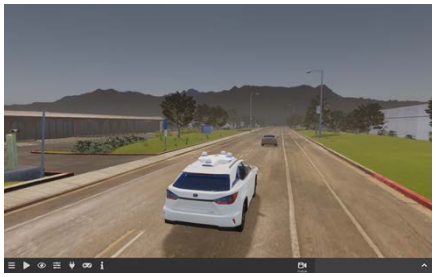
Monday, March 2	Start accepting applications on the official website. You can find information on the competition scenarios and submit team entries (maximum of three members) on the official website.
↓	
Friday, March 6	Local simulator made available on the official website.
↓	
Monday, April 13	Accounts and notifications issued for the online simulator, which will be activated and accept code. (Rankings will be updated in real time.)
↓	
Thursday, April 30 at 17:00	Closing of the online simulator and scoring.
↓	
Early May	Determine final ranking

■■■■ Overview of the Simulation ■■■■

◎ Scenarios will be built using the Autoware-compatible open source simulator (LGSVL).

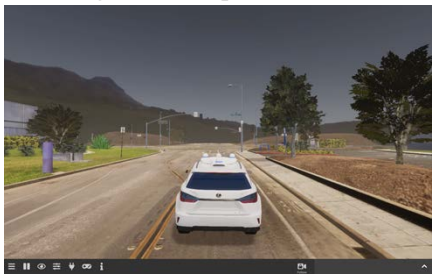
◎ The three scenarios below will be implemented.

Acceleration control (maintaining following distance with the vehicle ahead)



The team's vehicle must maintain a following distance of 5 m from the preceding vehicle for a minimum specified duration.

Avoiding a vehicle parked on the street



The team's vehicle must avoid a vehicle parked on the shoulder upon approaching to a target distance of 1.2 m, and go past the checkpoint ahead of the parked vehicle within the predetermined time.

Traffic signal recognition and start off

Recognize the traffic signal at day time. Based on the signal, stop at a target distance of 0.5 m ahead of the stop line, and start moving again within 3 seconds of the signal turning green.

◎ Participants will first use local simulations to run evaluate, and refine the code produced in their local environment.
◎ After the online simulator is activated, they will upload the completed code for an online evaluation by the simulator.
◎ Rankings will be determined by a score representing the total number of points determined from the positive, negative, or disqualification score for each individual scenario.

■■■■ Recommended environment ■■■■

◎ Recommended environment for Autoware

Element	Recommended specs
OS	Linux (Ubuntu 18.04)
CPU	Intel Core i7 (8 cores
Memory	16 GB or higher
Storage	30 GB or higher SSD
GPU	NVIDIA GeForce GTX 1080 or higher (when using a laptop with a GPU)

◎ Recommended LGSVL environment

- Same as the above recommended Autoware environment.
- At least 32 GB of memory and an RTX 2080 or higher GPU are recommended if run at the same time as Autoware.

  * The simulator is also available on Windows, and preparing a separate environment is allowed.

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