

Drift pilot Sergey Kabargin tested on his car the development of the Polytechnic

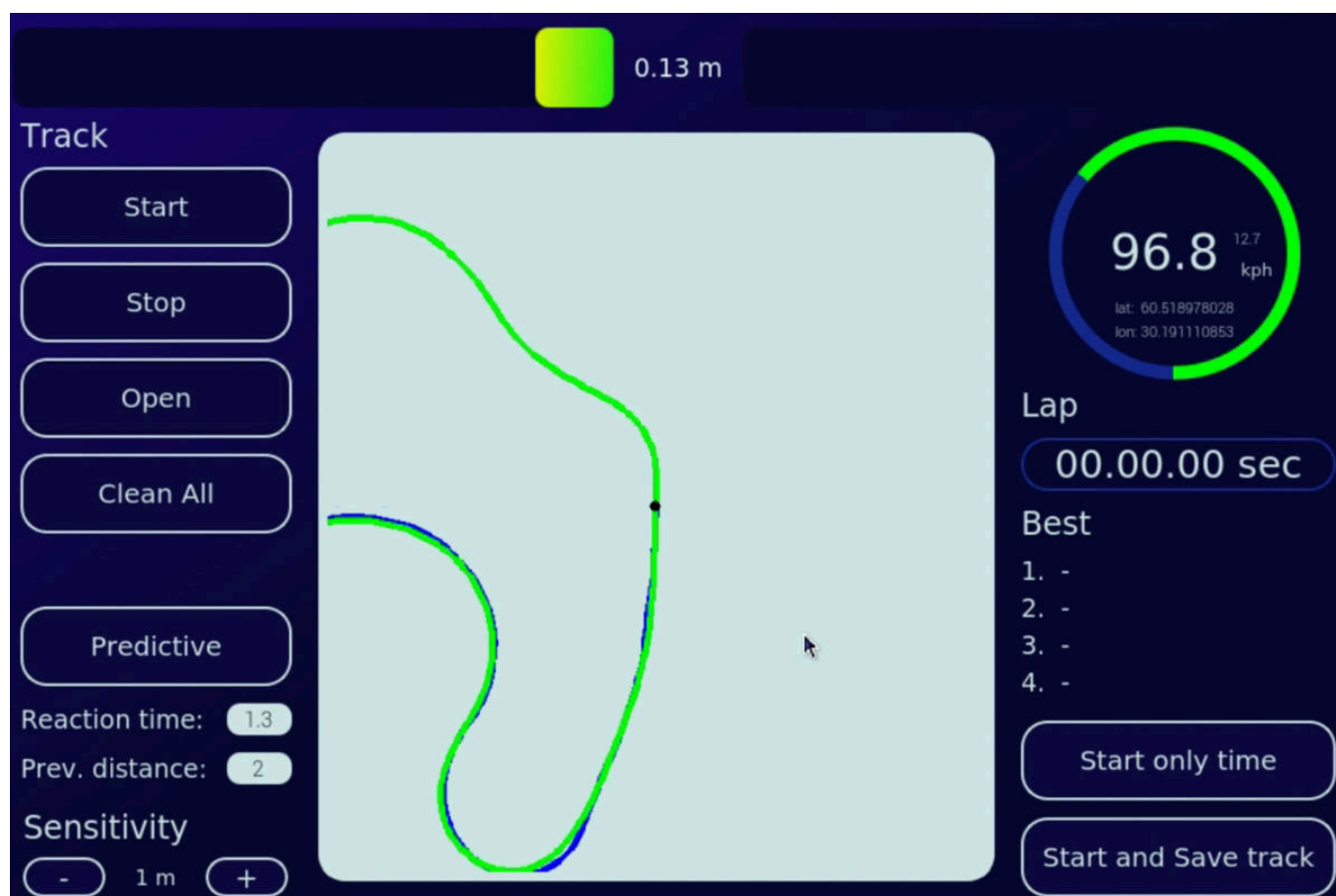
Track days were held at the Igora Drive racing circuit, during which engineers from St. Petersburg Polytechnic University tested their Race Assist telemetry equipment on the Radical sports car for the first time.



The «SimRacing. The Way from Simulator to Real Racing» project is supported by the Priority 2030 program and is designed to improve the training of novice pilots. The program is divided into two stages: the first is the development of the initial skills «at the wheel» of a driving simulator designed on the basis of a prototype of a sports car. The second stage is lessons on a real car with the help of a virtual trainer module, which prompts the optimal driving trajectory in real time.



The Virtual Trainer module consists of two precise GPS receivers with RTK mode, one of which is mounted directly in the car and sends data to the computer, and the other is mounted statically, near or within the track. When a professional pilot drives his best lap, his trajectory is recorded to an accuracy of 10 cm. Then a novice pilot-apprentice passes the same track, but with cues about deviations from the ideal trajectory, also the points of braking and acceleration in the turns are marked. Based on these data, the student adjusts his/her driving and the adaptation process is much faster. Cues to the pilot are projected on the LED strip installed in the visibility area. In the future, it is planned to display the data on the helmet's visor.



To test the device under development, it was necessary to create conditions as close as possible to future operation. During the track days, St. Petersburg [drift pilot Sergey Kabargin](#) tested his car Radical SR3 — British sports car with a curb weight of about 700 kg, which accelerates to 100 km/h in 3.1 seconds. Sergey was interested in Politex's development and by prior arrangement agreed to integrate the Race Assist system into his car. Race session was a success, the data was recorded and analyzed, the system worked steadily even at 250 km/h. There were no better conditions for the tests — a specially prepared track of F1 level, a car breaking the records at Nurburgring (racetrack in Germany — Ed. Note), and an excellent team headed by the pilot Sergei Kabargin. During the tests, we checked the performance of all systems of our virtual trainer module, and also came to several conclusions on the improvement of the interface, commented Vsevolod Gaiduk, SPbPU engineer.

The material was prepared by the «SimRacing. The road from simulator to real racing» project team.

SPbPU Media Center

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