

Field Robot Event 2022

Welcome to the FRE-2022

The 19th International Field Robot Event (FRE) will take place for the fifth time this year as part of the DLG Field Days. For the first time, the competition will be held in a hybrid format as a simulation and on an experimental field. The organizer is the University of Hohenheim in cooperation with DLG and other European universities and colleges. The FRE is an annual competition in which international student teams from Europe and the world compete with their field robots for the best solutions to agricultural mechanisation problems. The competition was initiated by Wageningen University (NL) in 2003 and has since established itself as a permanent fixture in agricultural robotics. The aim of the competition is to test future-oriented technologies in the field of robotics and precision farming under real conditions in the field and to give young scientists the opportunity to exchange ideas in an international circle of participants, to form networks and to develop their ideas further. Tasks in the field of navigation and application have to be solved on an experimental field with maize plants. In addition, the students can also demonstrate their skills on the virtual field in the simulation. The simulation is carried out in an open-source 3D robotics simulator called ROS/Gazebo. It provides realistic rendering of environments including high-quality lighting, shadows and textures. All competitions (simulation and trial field) will be transmitted to the internet via the digital platform "DLG-Connect" and can thus also be followed by spectators outside the DLG Field Days.

More information on the internet

www.fieldrobot.com/event

June 14th to 16th, 2022

Program

Monday, June 13th

Registration of teams
16:00 – 17:00 Briefing of team captains (*not public*)

Tuesday, June 14th

09:40 – 10:00 Welcome note
Task Navigation
Basic and advanced navigation in a maize field
(max travelled distance per time will win)
10:00 – 12:00 **Simulation Contest**
14:00 – 16:00 **Field Contest**
16:30 – 17:00 **Awarding**
17:00 – 17:30 FAQ and support (*not public*)

Wednesday, June 15th

Task Sensing and Mapping
Weed and object detection, georeferencing
in a maize field
(the most correct map wins)
10:00 – 12:00 **Simulation Contest**
14:00 – 16:00 **Field Contest**
16:30 – 17:00 **Awarding**
17:00 – 17:30 FAQ and support (*not public*)

Thursday, June 16th

Task Free Style
Free Style: Free choice for the teams
(Complexity, performance and usefulness will win)
10:00 – 11:00 **Simulation Contest**
12:00 – 13:00 **Field Contest**
13:30 – 14:30 **Awarding**
Farewell

Contact

Phone Prof. Dr. Hans W. Griepentrog
+49-711-459-24550
Email i440d@uni-hohenheim.de

Supported by



www.fieldrobot.com/event



Field Robot Event

International Contest

19th edition

14th – 16th June 2022

Simulation and Field Contest

