

Team Information



Picture of vehicle:

Name of vehicle:

ARTOR (Autonomous Rough Terrain Outdoor Robot)



Picture of team leader:

Name of team leader:

Philipp Krüsi

Team Name:

ARTOR

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Switzerland

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Team Information

Team Description:

Team ARTOR is a collaboration between the Autonomous Systems Lab (ASL) at ETH Zürich, RUAG Defence and armasuisse W+T. The team is composed of PhD and Master students at ASL and technical staff at RUAG Defence, under the leadership of Philipp Krüsi (PhD student, ETH/ASL) and Dr. Thomas Nussbaumer (Head of the armasuisse research program UGV, RUAG Defence).

Our robot ARTOR (Autonomous Rough Terrain Outdoor Robot) is a 6-wheeled, skid-steered electric vehicle. An array of onboard sensors is used for monitoring the robot's state and gathering information about the environment for online mapping, localization and obstacle avoidance. The equipment includes a rotating 3D laser scanner, two 2D laser scanners, a stereo camera, a GPS receiver and an inertial measurement unit. Furthermore, a pan-tilt-zoom unit containing both a visual and a thermal camera is installed. All data processing for autonomous navigation, including mapping, localization, path planning, obstacle avoidance and motion control, is performed on the onboard computer, using the robot operating system ROS.

Sponsors:

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Selection of scenario:

1. Reconnaissance and surveillance - ISR
2. Transport – Movements
3. Transport – Mule

Proof of citizenship:

Copy of passport is attached.