ELROB 2026

15 – 19 June 2026
Thun, Switzerland

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REAL TASKS, IN A REAL WORLD SCENARIO

Reconnaissance of unexploded remnants of war

Reconnaissance of surfaces and infrastructure in areas with remnants of war in agricultural or urban regions. In addition, the inspection/checking of vehicles within the scope of hazard prevention. Objects that may present a hazard are likely to be detected.

Environment:

Rural structures surrounded by meadows/grass, dirt roads, small stairs, low light, curtains, furniture, confined spaces, closed doors, sand, gravel, containers, stones.

Objects or surfaces will be examined both indoors and outdoors.

Situation:

Explore a target area in several scenarios. The target area is approximately 140 x 60 m in size and there is no direct line of sight.

Dynamic objects and static obstacles are to be expected on the route. There may be dead ends, sharp curves, barriers, bottlenecks, and high vegetation and trees.

Objectives:

Core requirements:

- Prepare detailed maps (georeferenced, if possible)
- Create 3D views of the area in question
- 100% search/inspection of the assigned sector
- Automated collision protection
- Automated recovery function
- Data transfer to operator (focus on video)

Secondary requirements:

- Autonomous search of the area or space
- Localize atypical objects
- Operator-independent approach
- Map suspicious objects/foreign bodies
- Place tools or items for follow-up (max. 500g)
- Direct transfer of maps or 3D views

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- **Execution:**

There are 3 scenarios.

- Scenario 1:

Search a building, meeting core requirements.

Constraints: maximum dimensions of the system = 140cm x 70cm x 115cm
Maximum weight: 400 kg

- Scenario 2:

Check parked vehicles in former war zone, meeting core requirements.

Constraints: maximum dimensions (length x width x height) of the system = 140cm x 70cm x 115cm
Maximum weight: 400 kg

- Scenario 3:

Search an open space for geometrically standardized objects made of metal or plastic. The objects can be above or below ground. In addition, access is obstructed by other blocking elements.

Constraints: none

Chronological sequence:

Depending on the number of participants, each team has 2.5 to 3.5 hours to complete all scenarios. The teams decide for themselves which scenarios they want to participate in.

Note:

The scenarios focus entirely on sensor technology. The tactical approach is negligible. Firing or demolition techniques are not envisaged. The participants can complete individual stations or the entire course depending on the capabilities of their robotics/sensor systems.

* ERW = explosive remnants of war

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