

Eurathlon 2013

23.-27. September 2013,
Berchtesgaden, Germany

www.eurathlon2013.eu

REAL TASKS, IN A REAL WORLD SCENARIO

Mobile manipulation for handling hazardous material

Chemical, biological, radiological, nuclear and explosive (CBRNE) incident response becomes increasingly important in these days. In case of such an incident a robot can help removing responders from dangerous situations. With an additional manipulator the vehicle's mobility can be increased because doors can be opened and obstacles pushed away. In addition, the manipulator can manipulate hazardous material.



Environment:

Semi urban; open space with asphalt and gravel; some vegetation, weeds, rubble and debris; obstacles.

!!! The document is subject to change and refinement!!!

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Situation:

There is an area contaminated with hazardous materials about 10m away.

A manipulator-equipped vehicle has to be moved to this area; expect some obstacles (e.g. kerbstones, tracks and rails) to overcome.

In the target area some sub-tasks have to be accomplished using the mobile manipulator.

Objective:

Approach the area of interest with highest autonomy possible.

First object of interest is a tank waggon with open valves, which have to be closed. Second, a leaking canister has to be taken from the loading platform of a pickup truck and put into a blue barrel beside lorry.

Finally, the vehicle has to return to the control station.

If possible, transmit live position and imagery to the control station.

All this should be done with highest possible autonomy.

Timing:

Duration approx. 45 min.

The scenario ends with mission completion and return to the control station or with reaching the time limit, whatever occurs first.

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