# **Prototyping**



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### Motivation

### Rescue robots

HOCHSCHULE HAMM-LIPPSTADT

- ► Serious accidents
- ▶ Natural disasters



[https://i.ytimg.com/vi/-3GzQ9kryx4/maxresdefault.jpg]

► Recovery of persons or objects involves high risks

## ▶ Idea

▶ Development of a rescue robot that assists in the recovery and exploration of dangerous areas

# Rescue Robot Challenges



► Environment also consists of water

► <a href="https://www.youtube.com/watch?v=lgDzOYQov8">https://www.youtube.com/watch?v=lgDzOYQov8</a>

▶ Hence, rescue robot must be able to drive in water, too

## **Prerequisite**



- ▶ Build teams
  - ▶ 4 to 6 persons
  - ▶ github





- ▶ include all persons of team + Gido & Kristian & Stefan
- ▶ If you like: skype, slack, trello, ...
- ▶ Deadline: April 9
- ► Awarding best ideas
  - ▶ No impact on evaluation!

## Systems Engineering

### Task 1



- Develop a first requirements specification based on the Systems Engineering lecture
  - ▶ Deadline: April 15, eob, input for lab on April 16
  - ► Apply the steps from the lecture
    - Requirement Elicitation
    - ▶ Requirement Analysis
    - Requirement Specification
    - Requirement Validation
- Outcome are a SysML requirements diagram and appropriate UML Diagrams if required for the specific steps
- Divide the overall task into separate parts for each teammember in the following way

			Name1		Name2		Name
#	Task	Short summary		Done (incl. Finishing date	Todo	Done	:
1	Task1						
2	Task2						
	Task						