

SNAKE ROBOTS FOR EMERGENCY RESPONSE

Aksel Transeth, Giancarlo Marafioti

SINTEF Digital - Mathematics and Cybernetics

Input on requirements for snake robots for Urban Search and Rescue (USaR)



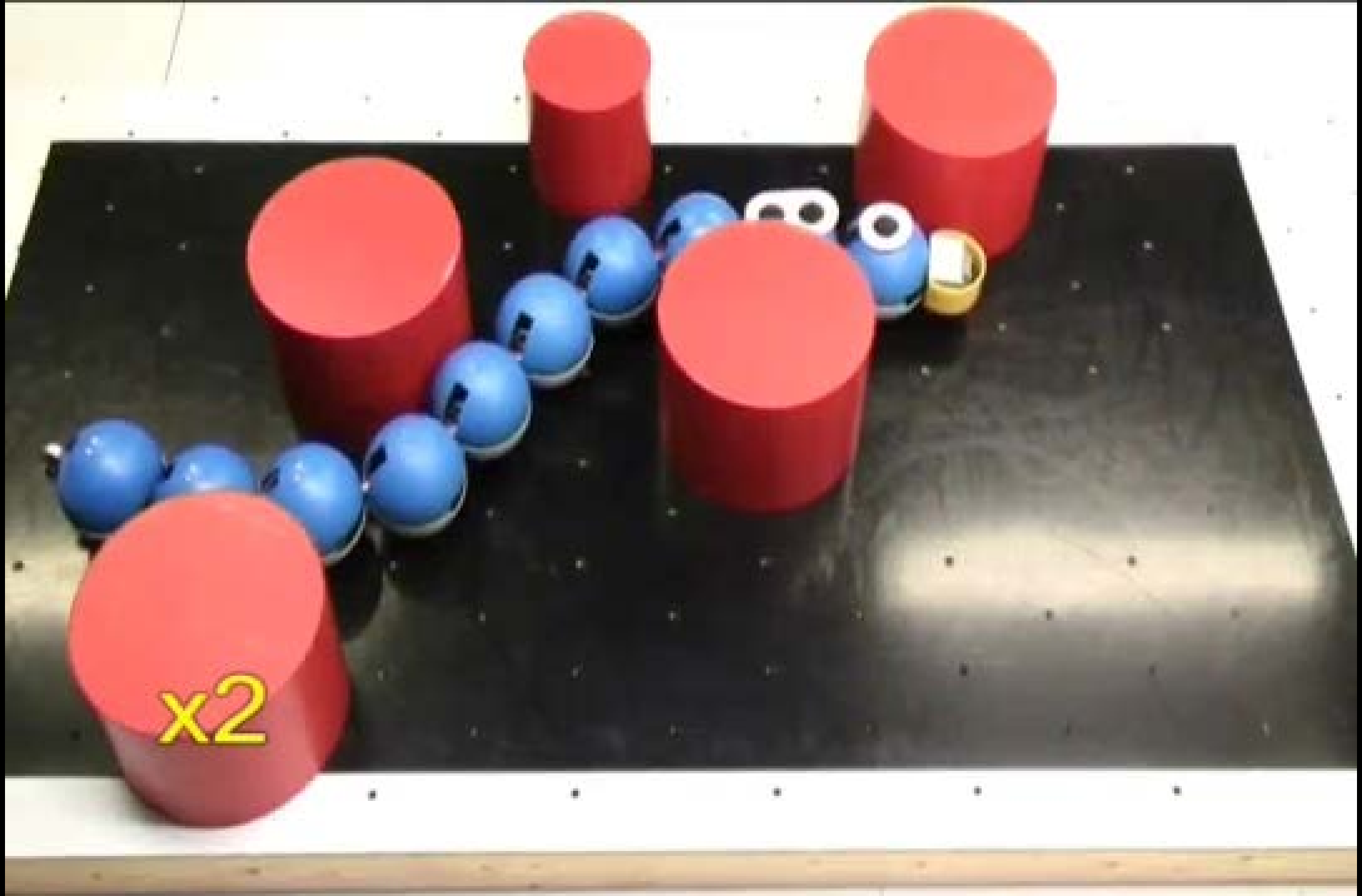
- Traverse small holes and large gaps
- Short and easy set-up (max 15 min)
- Controllable by USaR personnel (non-robot expert)
- Low-cost
- Different payloads
- Long battery life (> 120 min) or tether
- Know the precise location of the robot

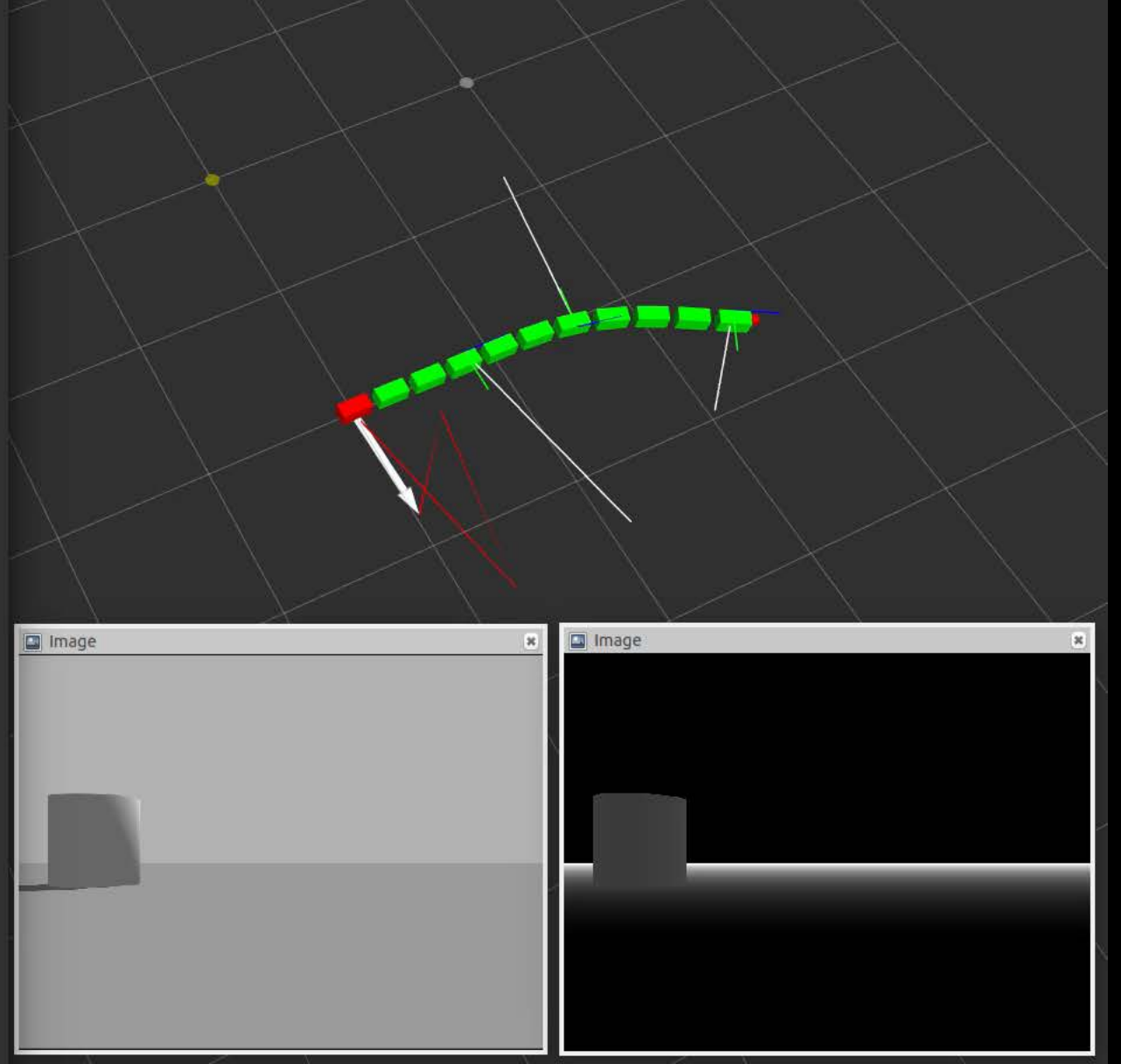
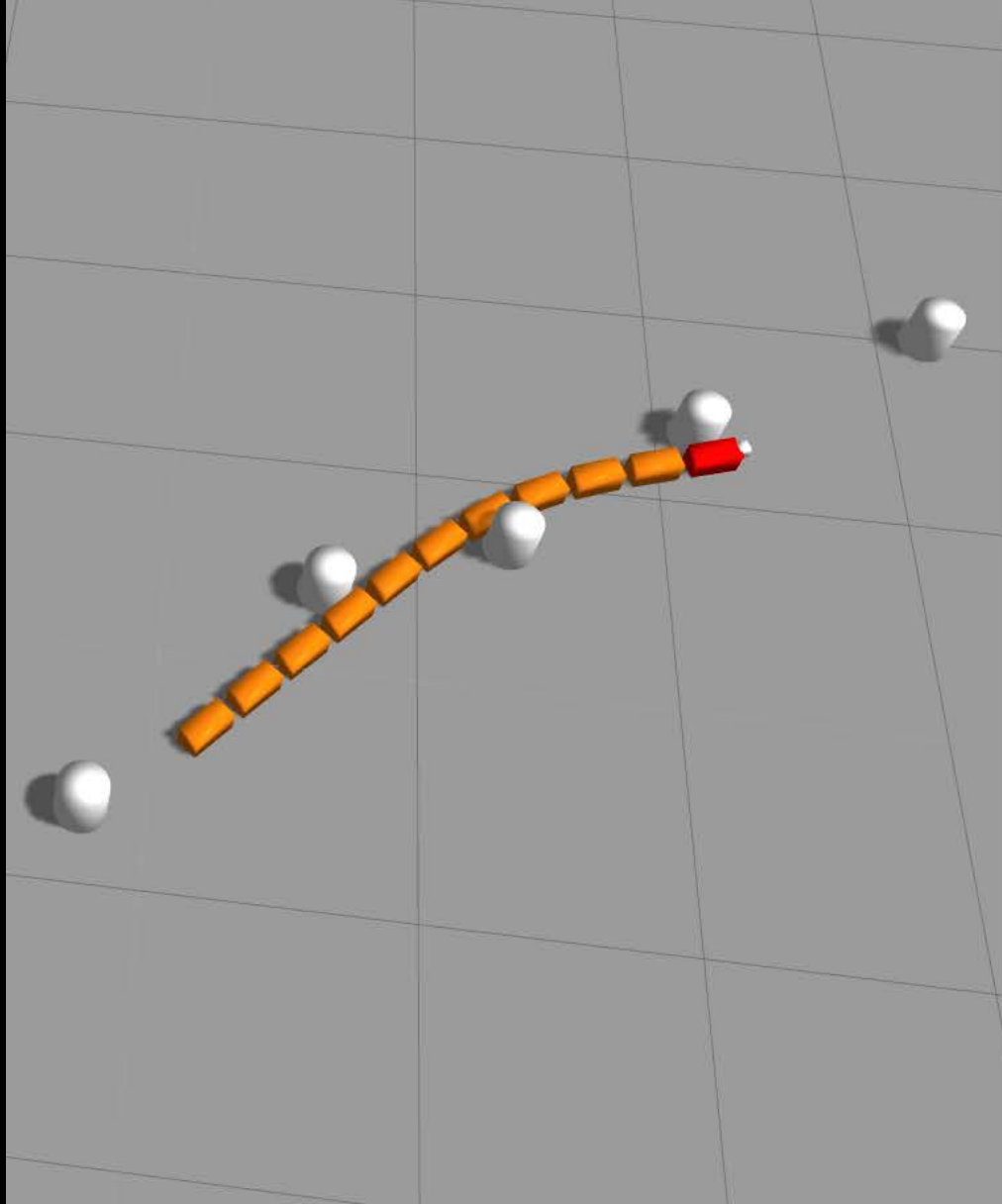


CAN SNAKE ROBOTS FULFILL THE REQUIREMENTS?

Radar







Filippo Sanfilippo, Ø. Stavdahl and P. Liljebäck. SnakeSIM: a ROS-based Rapid-Prototyping Framework for Perception-Driven Obstacle-Aided Locomotion of Snake Robots. In *Proc. ROBOTICS*, 2017.





Technology for a better society