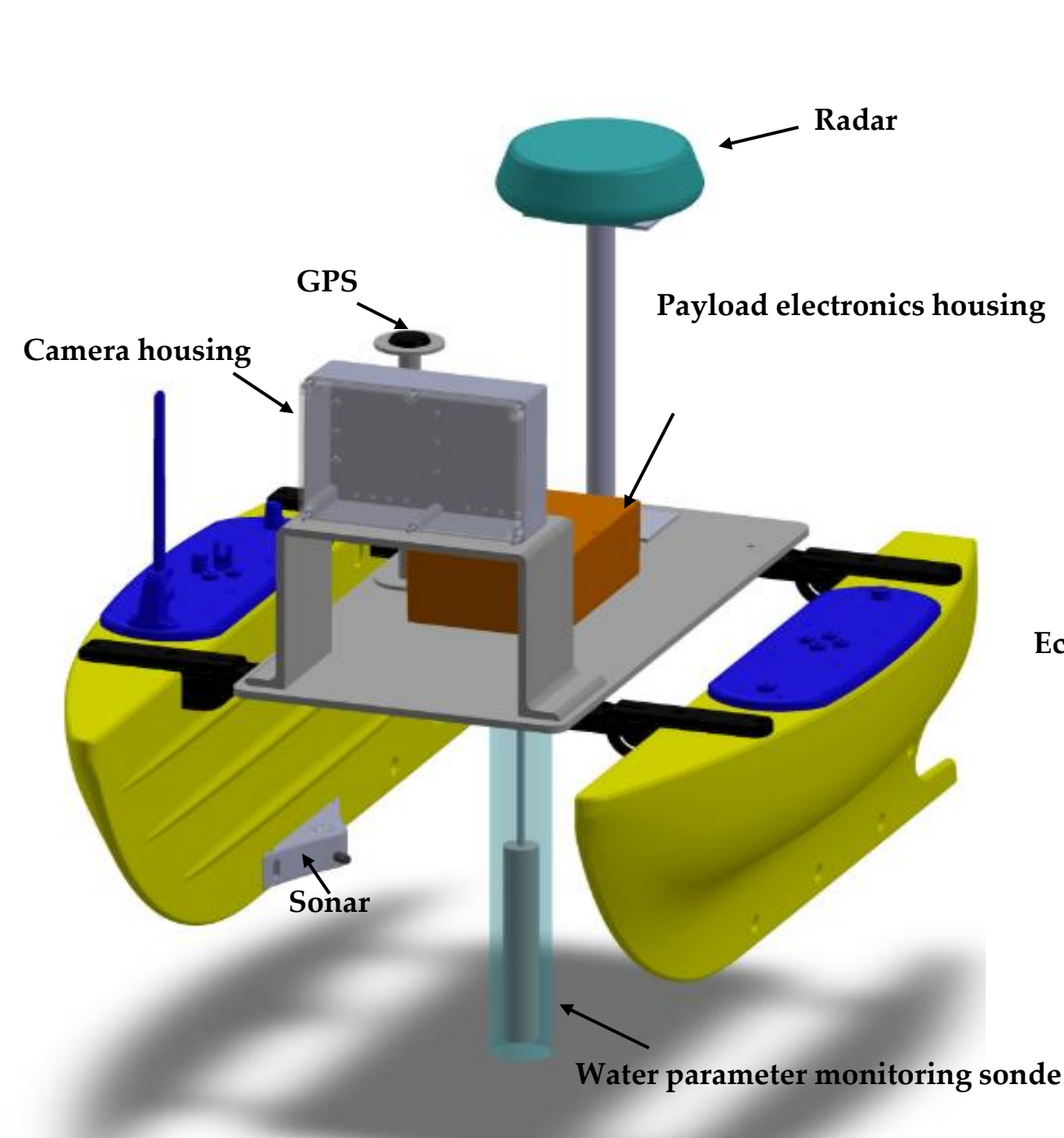
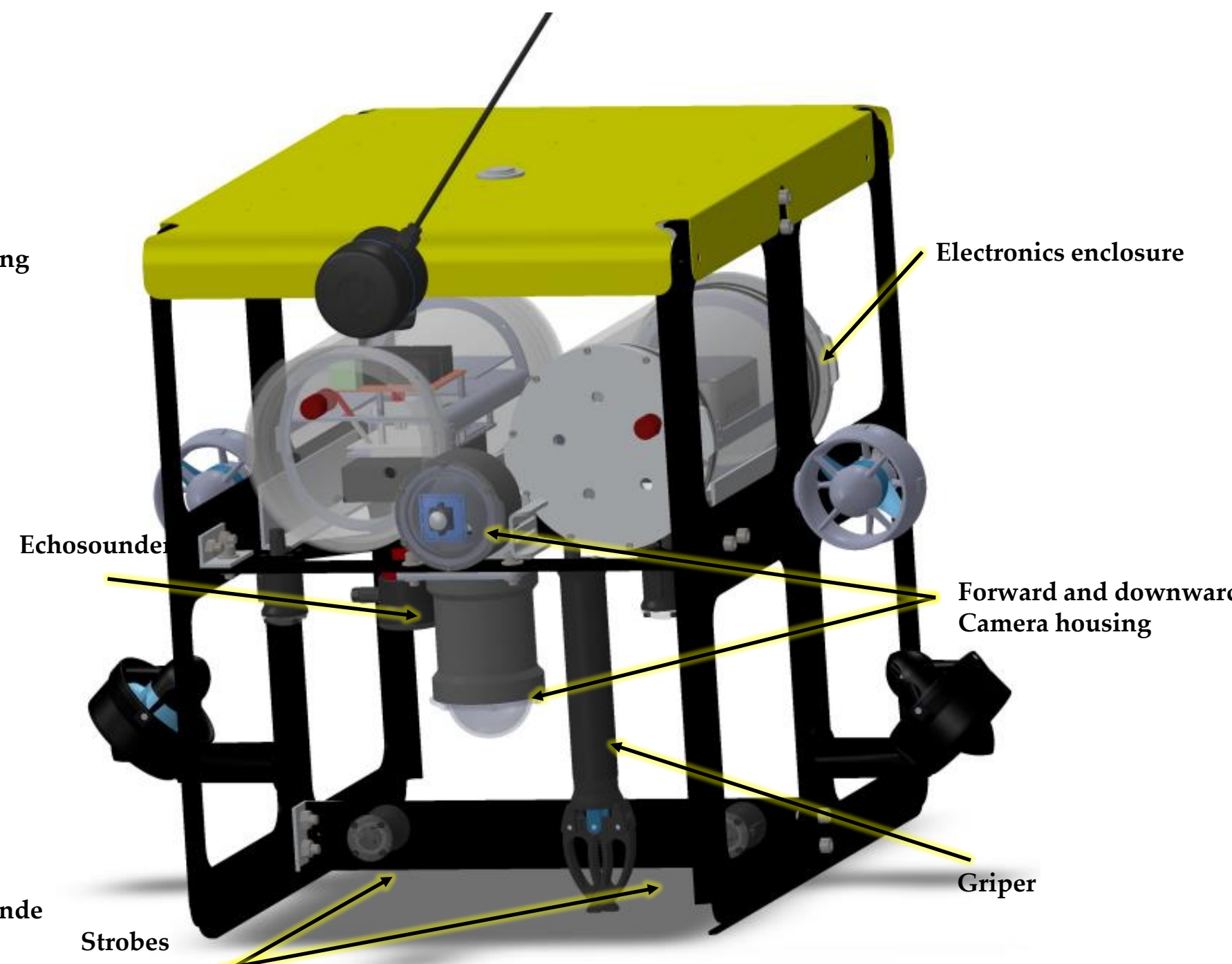


Robotics: Multibody and Flexible (RMF)



Development of the lake monitoring/surveillance USV platform



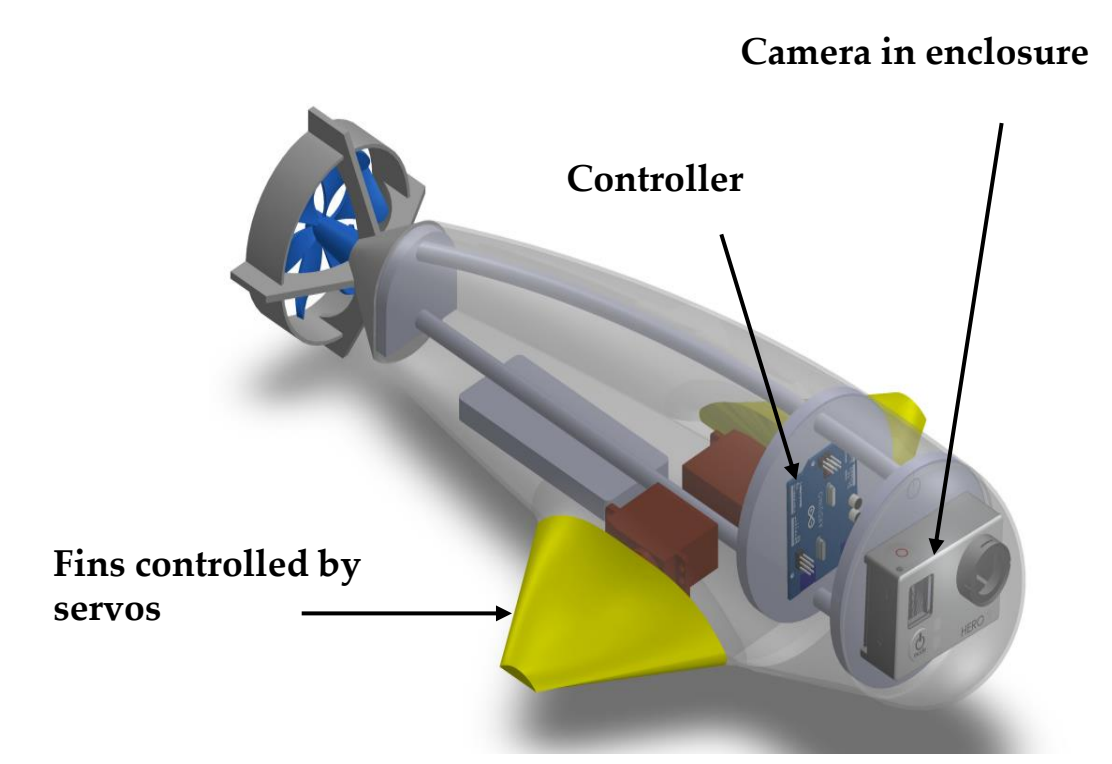
Development of an ROV platform for the detection of anomalies and close-range inspection using SONAR and underwater cameras



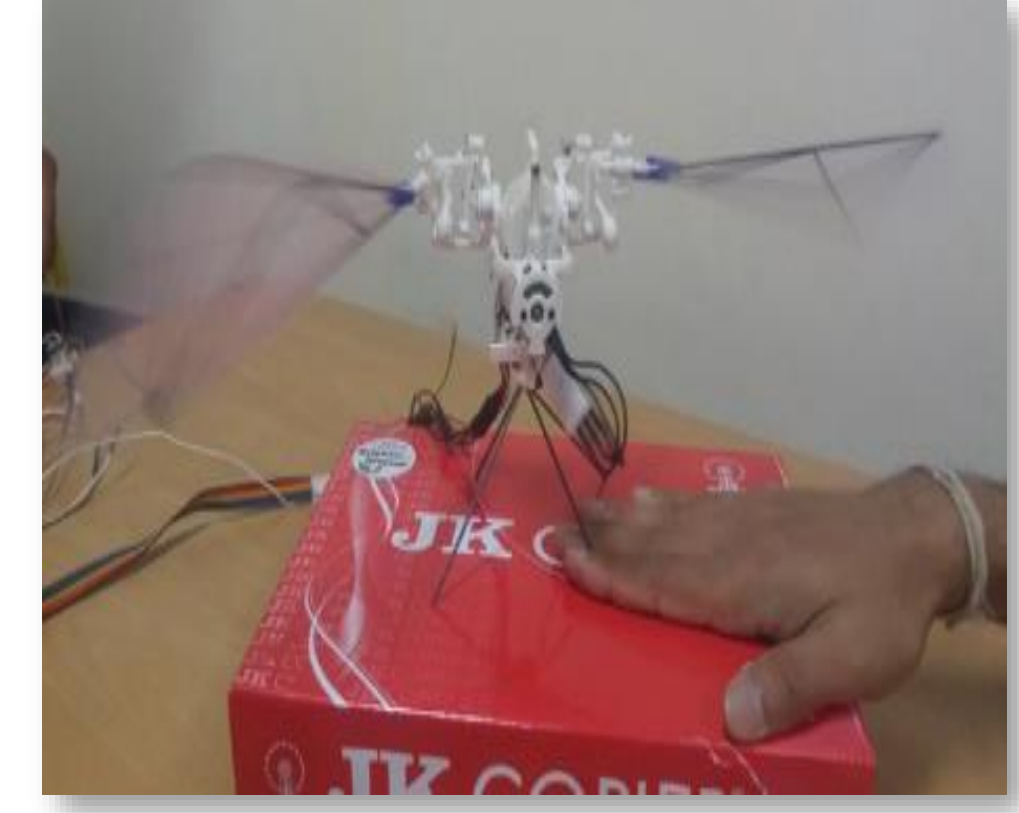
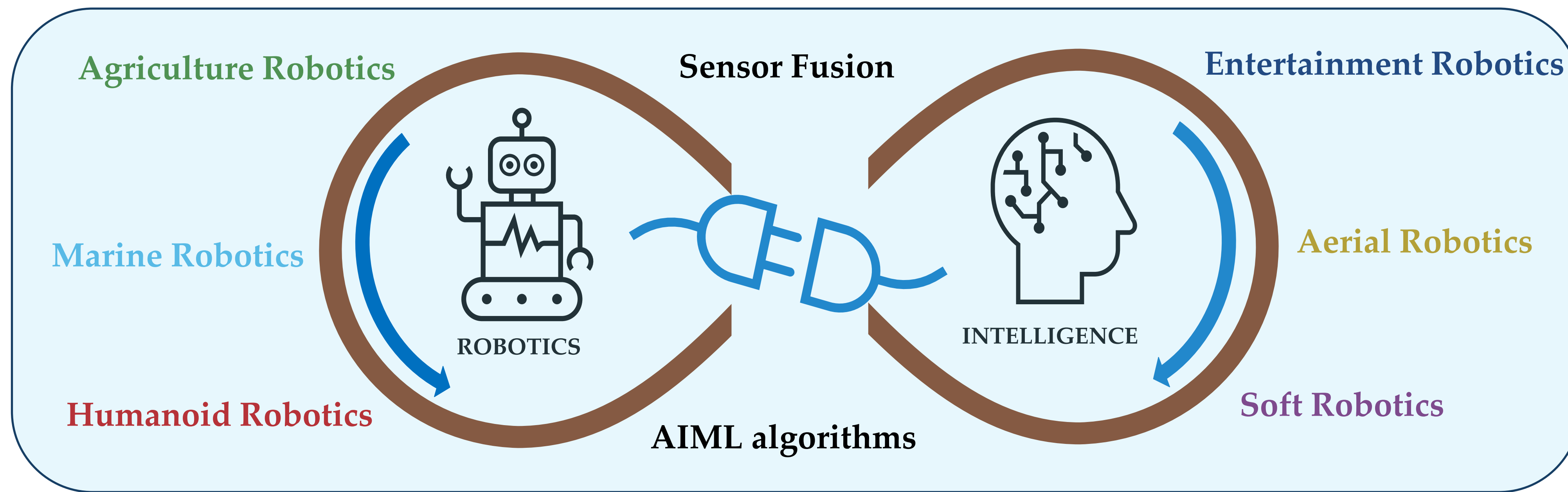
Aerial robot manipulator holding two objects



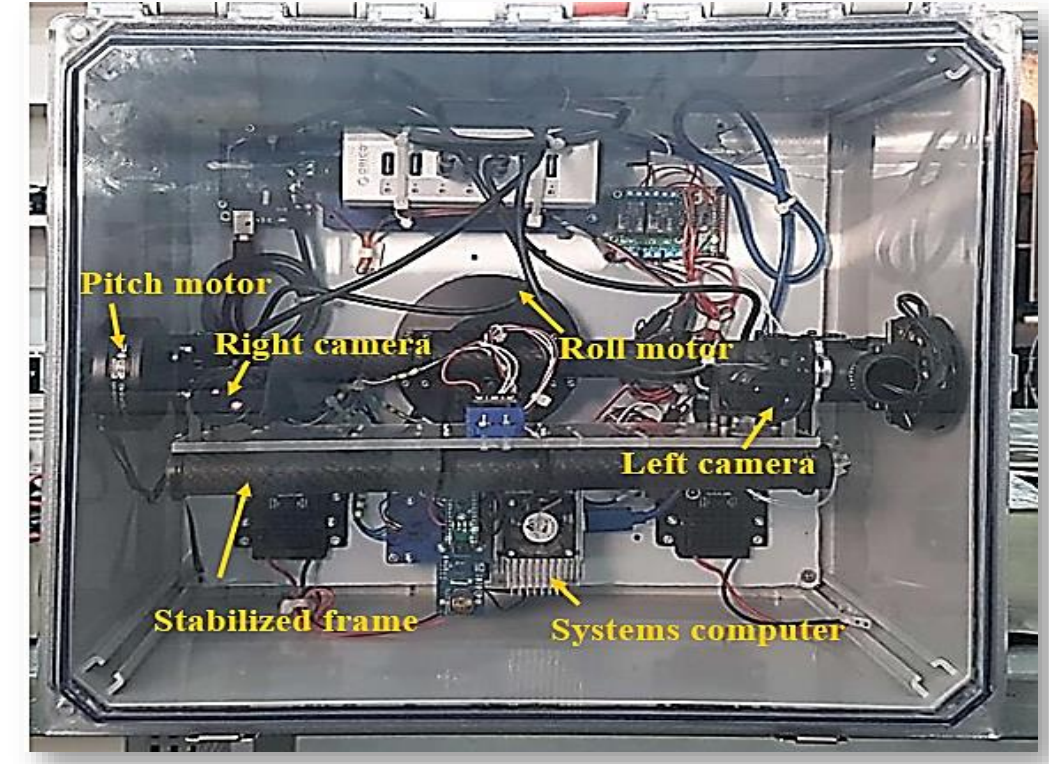
Four quadcopters with rigid connection payload



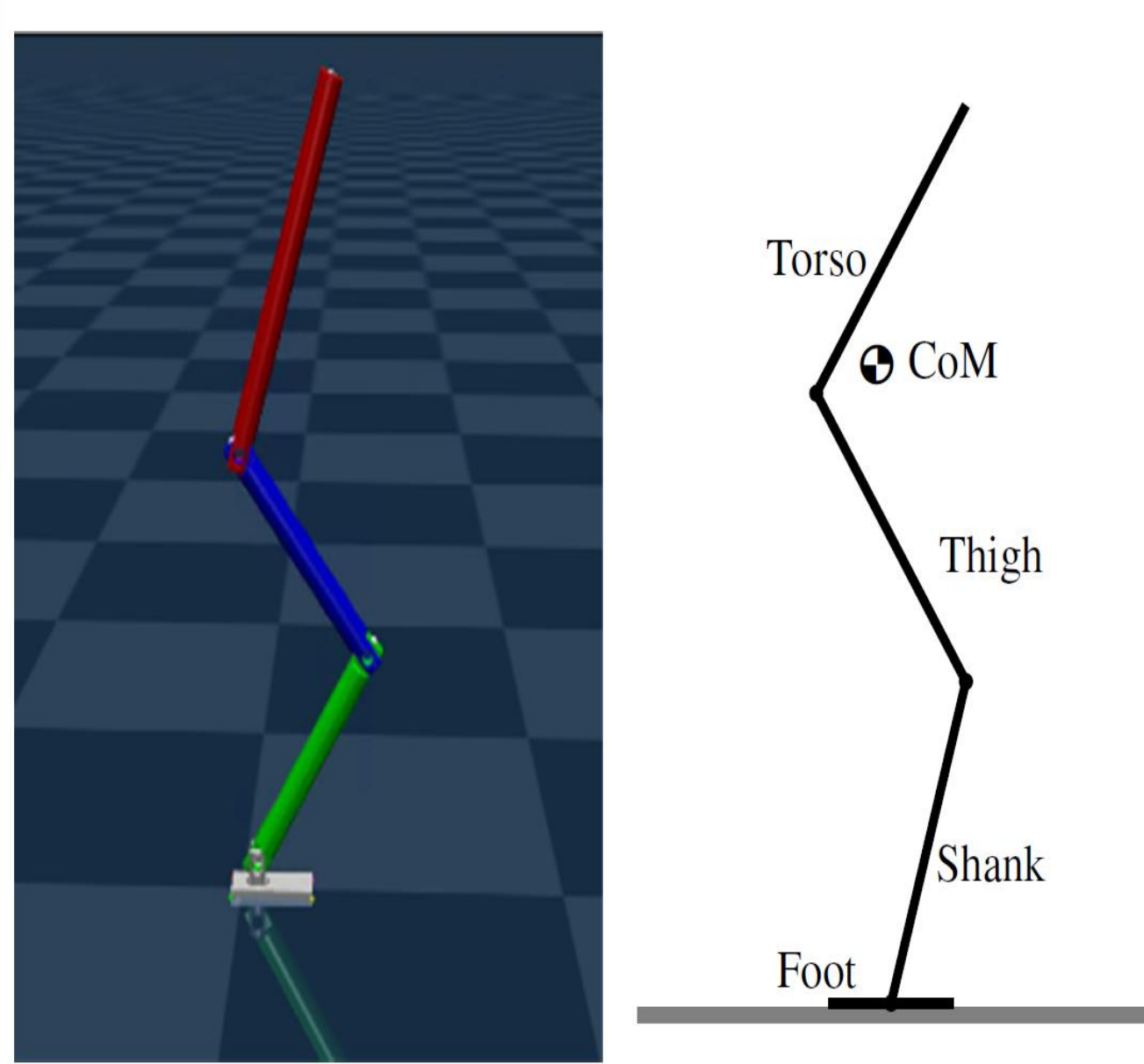
Development of a small underwater robotic platform for close-range inspection of fish health



Flapping wing design



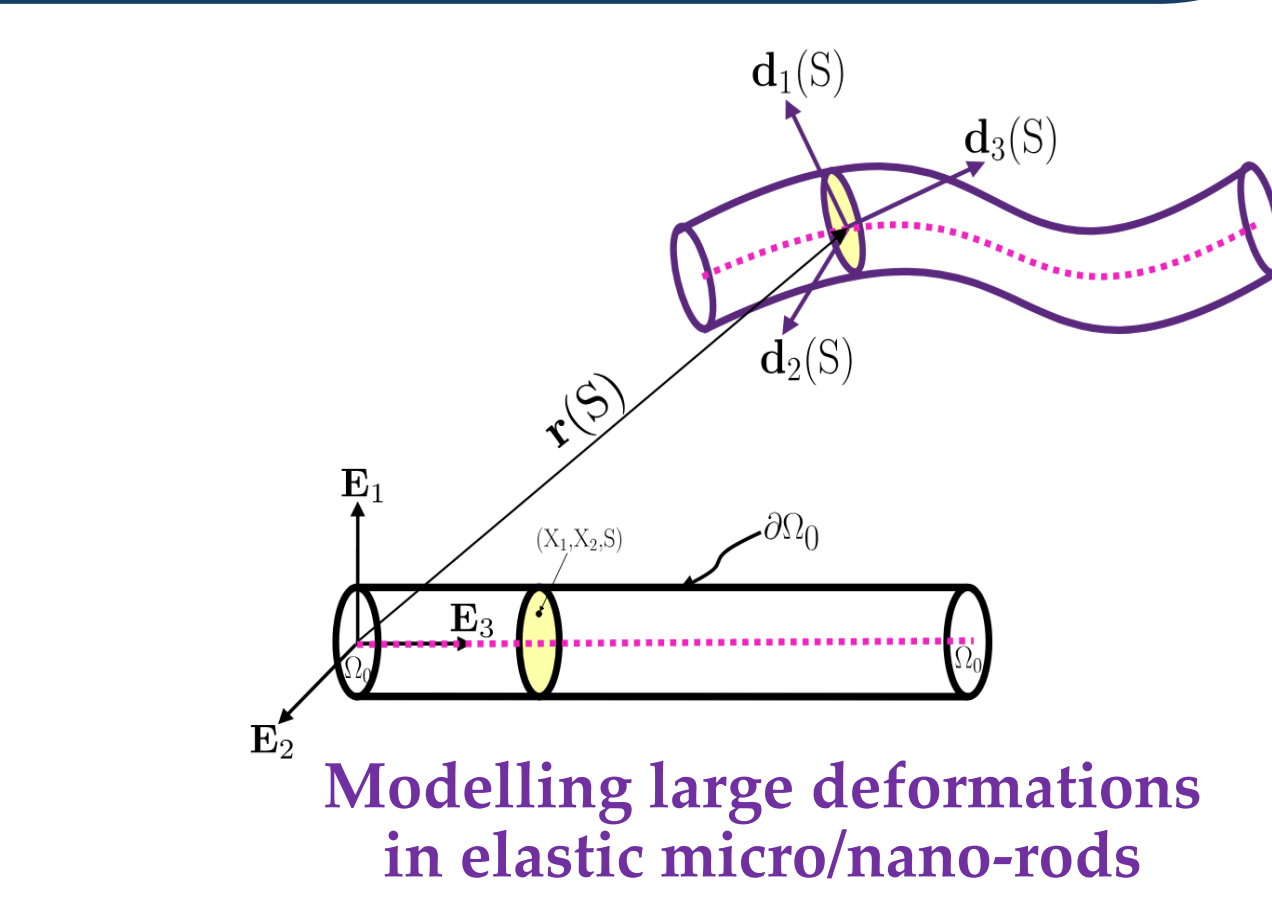
Stabilized stereo camera setup



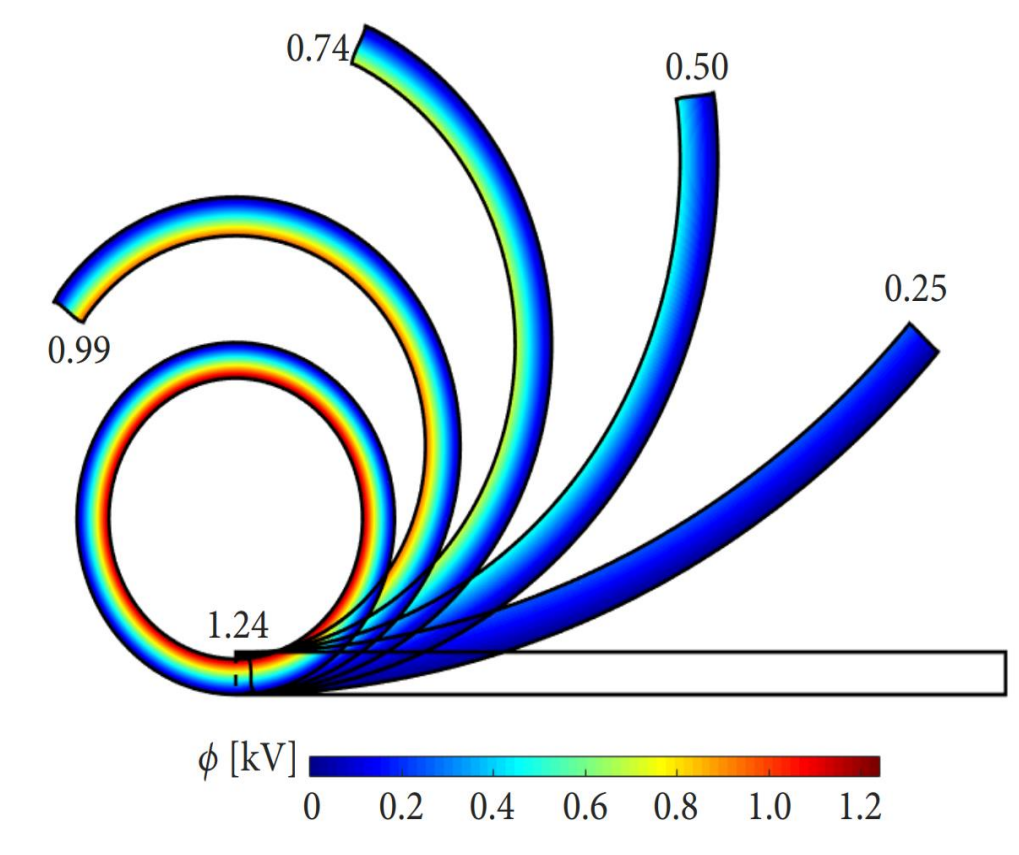
Deep RL for locomotion on very low friction surfaces



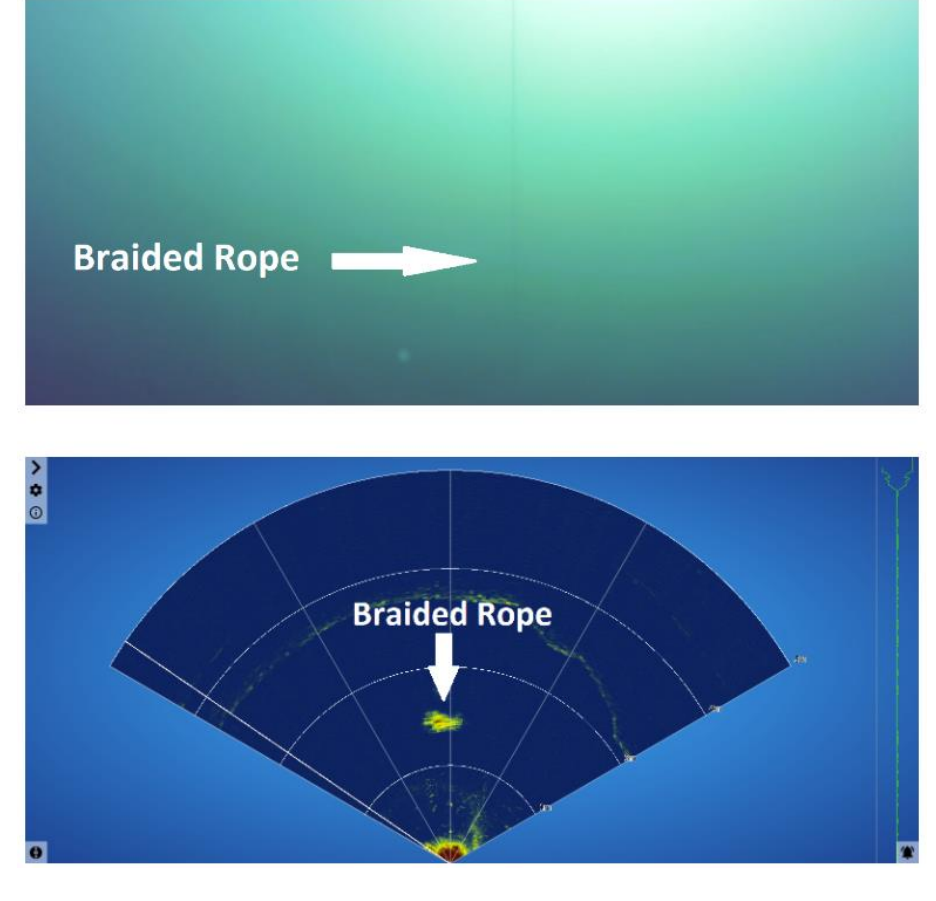
Walking humanoid robots



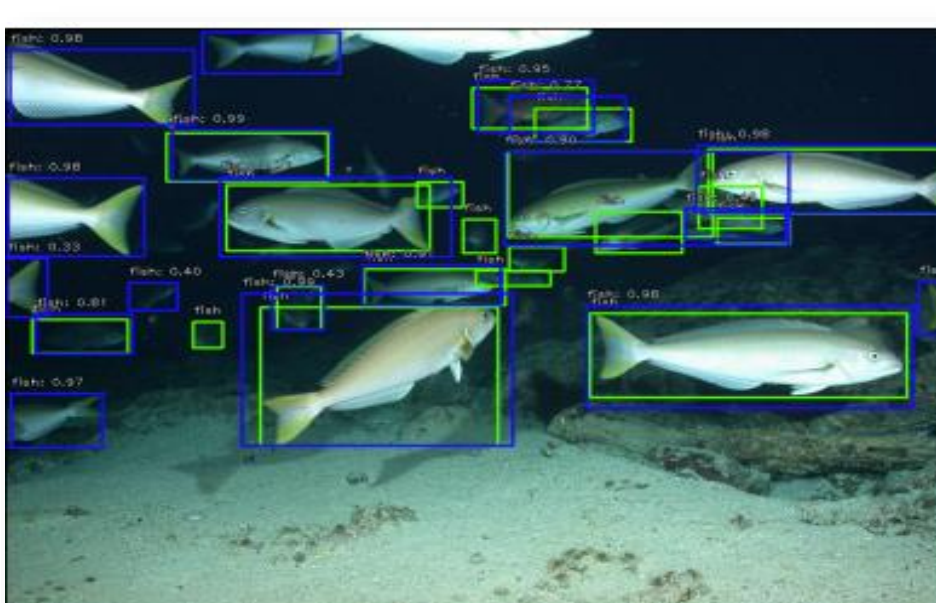
Modelling large deformations in elastic micro/nano-rods



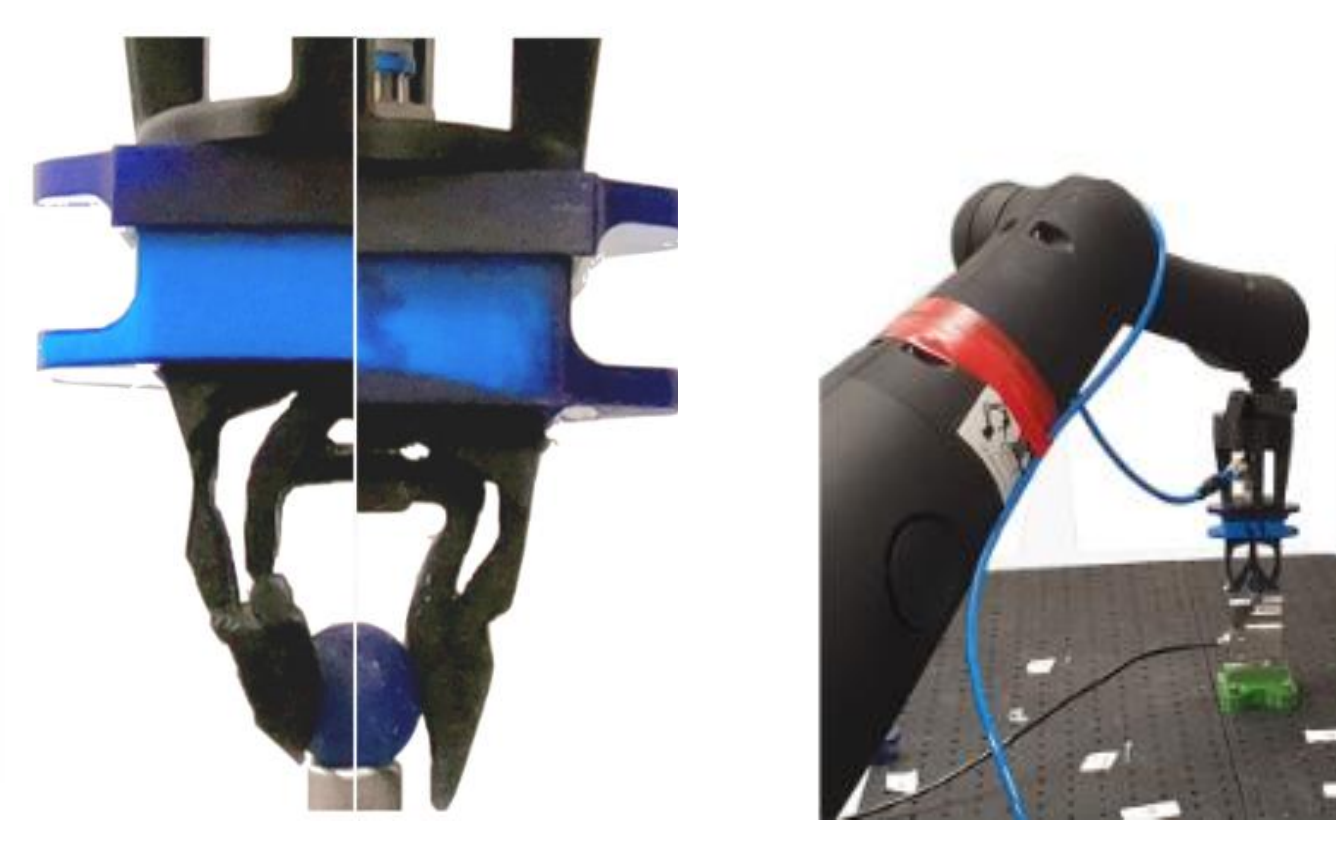
Soft robotic appendage deforming under electrical actuation



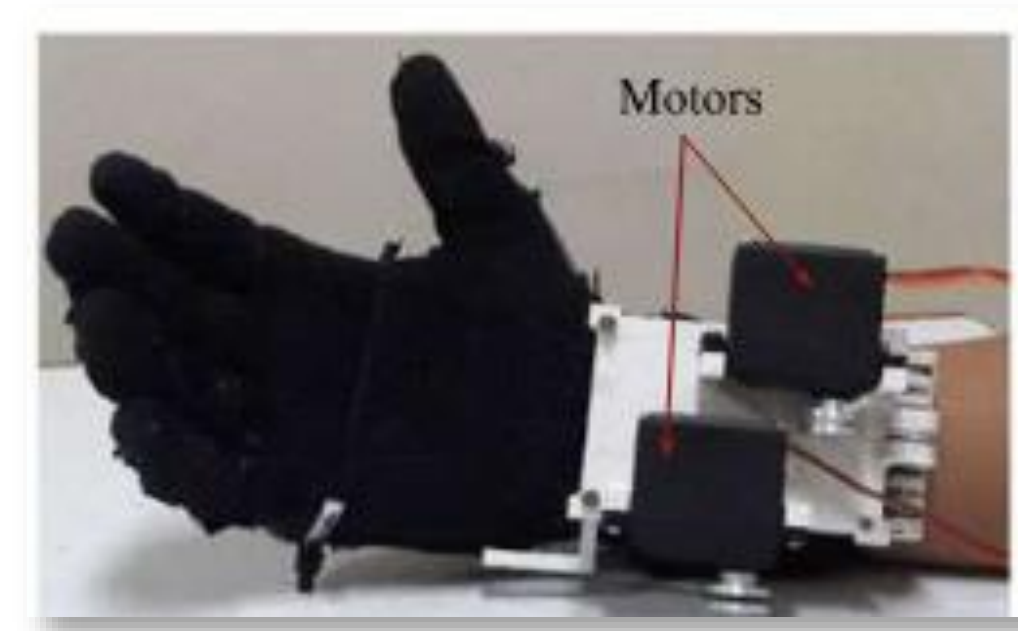
Sonar for anomaly detection and collision avoidance



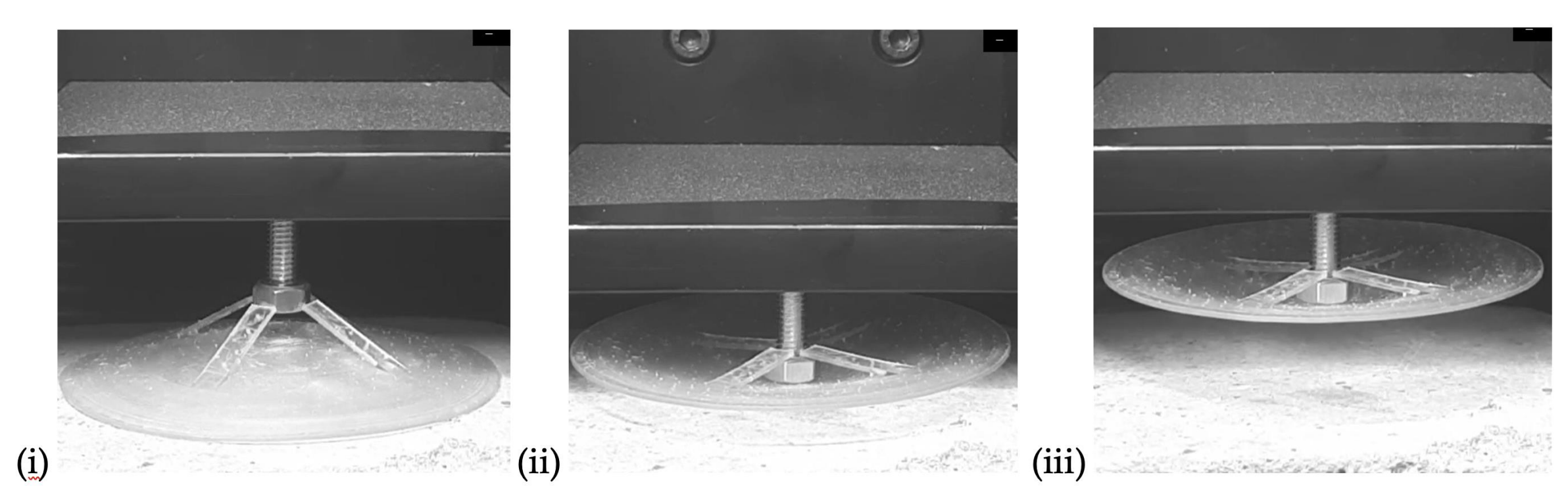
ML algorithms for fish biomass and health monitoring



Pneumatic soft grippers



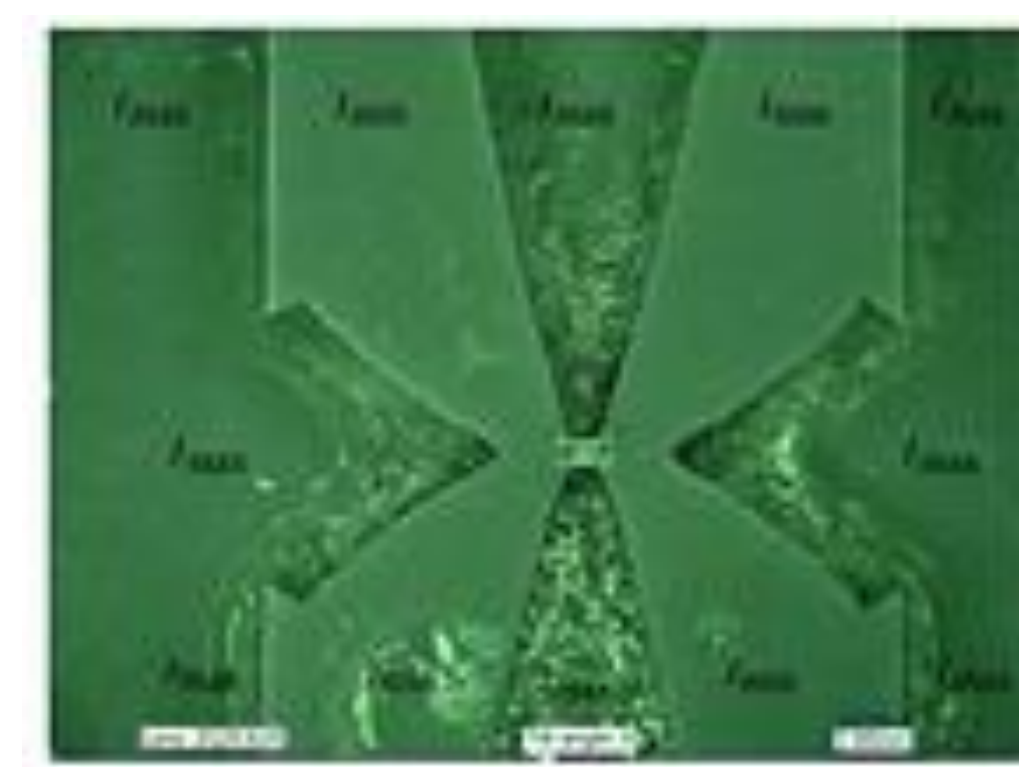
Soft hand exoskeleton



Compliant and passive universal gripper: a screw-head pushing an (i) convex-up shell (ii) everting it (iii) and picking it up



Floor mopping robot



Compliant fluidic mechanism

The Team



Prasanth Kumar R
Professor

- Legged robots
- Humanoid robots
- UAV and multi-copter control
- Aerial manipulation



Himabindu Allaka
Assistant Professor

- Marine robotics
- Guidance navigation and control
- Sensor suit development



Prabhat Kumar
Assistant Professor

- Soft robotics
- Hand exoskeleton
- Flapping wings



Prakhar Gupta
Assistant Professor

- Soft robotics
- Non-linear mechanics
- Flapping wings



Vishnu R Unni
Assistant Professor

- Aerial robotics
- Swarm dynamics
- Bioinspired robotics



Safvan Palathingal

- Nonlinear mechanics of slender structures
- Compliant mechanisms and optimisation
- Smart actuators
- Robotics