# Multi-Agent Robust & Intelligent Autonomous Manipulation (MARIAM)

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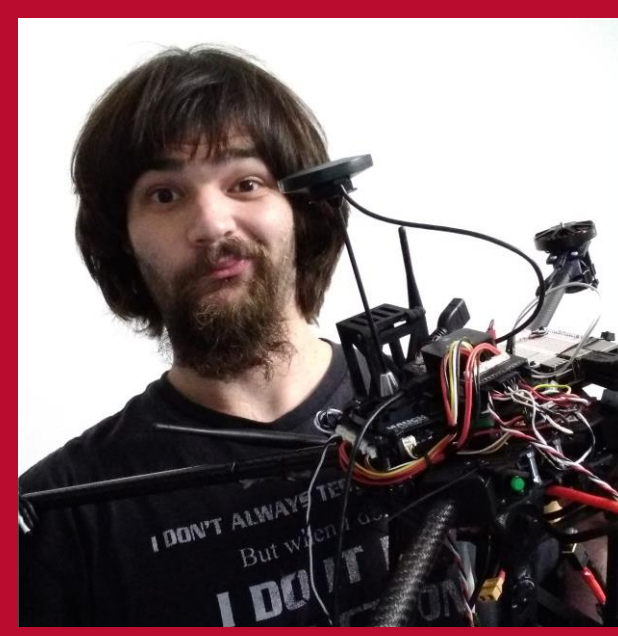
## Agent:

- Support force feedback
- Impedance control
- 6-DOF arm movement
- LiDAR for localization and mapping

## Vision:

- Incorporate object manipulation and collective learning into object identification
- Visual inspection of objects from different perspectives
- Bio-inspired approach mimics the multi-modal assessment of objects observed in children as they learn to identify objects

## Collaborative Transport:

- Guaranteed coupled stability requires real-time response
- A robust algorithm will generalize the core project's stability preservation mechanisms to manipulators mounted on distributed robots.

Can **swarm robotics** improve object recognition, object **manipulation**, and **collaboratively transport** objects?

**Videos & Images**