

Mitigation of sensor data errors

Background:

A cornerstone of robotic autonomous navigation are sensors. Said technology often relies on exteroceptive sensors to perceive the surroundings in order to safely navigate through it. However, sensors are imperfect and the possibility of mitigating their data errors can lead to increased system robustness. Targeting environments that often prove challenging for a set of sensors could ultimately lead to improving the overall navigational safety of the robot.

Description and objective:

- Choose a sensor configuration.
- Identify the sensors' sources of error.
- Identify a solution for sensor data error mitigation for when the sensors are exposed to their sources of error.
- Conduct experiments where the sensor configuration is exposed to its error-prone environment.
- Evaluate the performance of the solution

