

# UH Autonomous Robot Patrol System

## Motivation

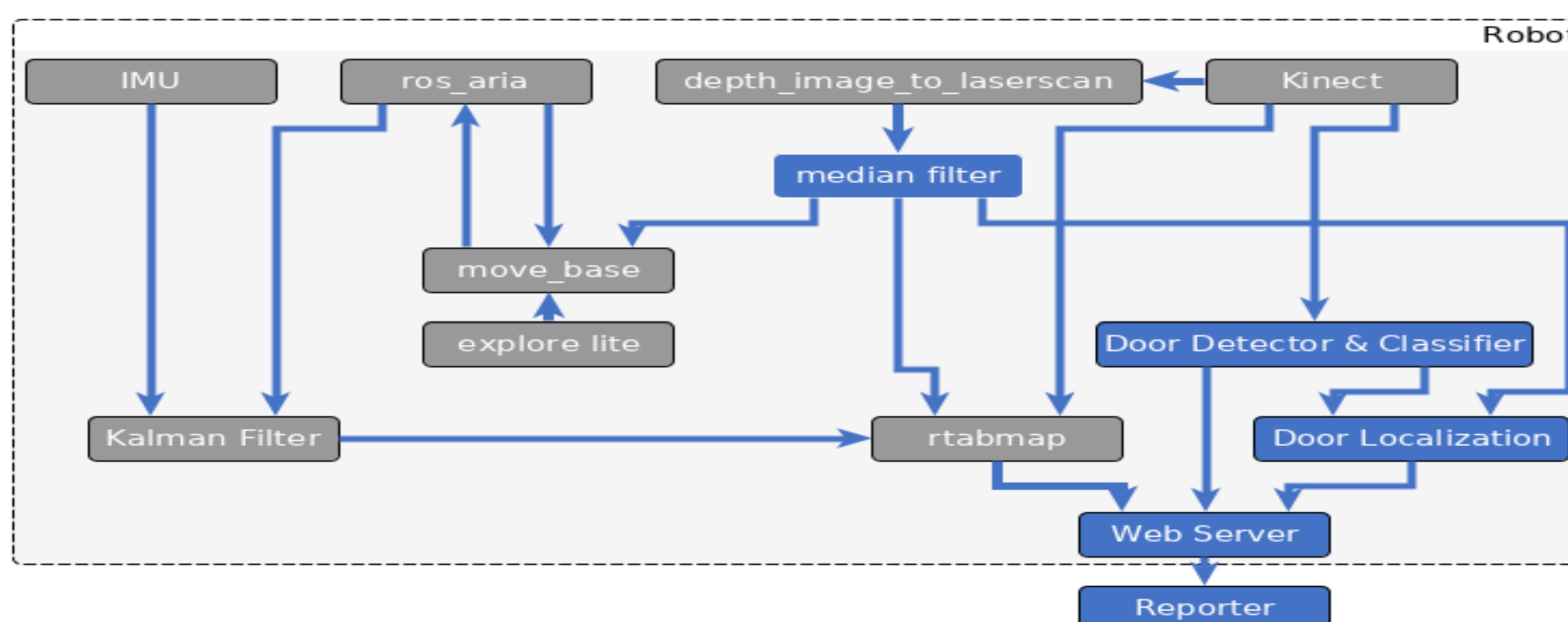
Achieve an autonomous guarding agent by:

- 1) Implementing visual **S**elf **L**ocalization **A**nd **M**apping
- 2) Detecting doors using Deep Neural Networks

## Hardware



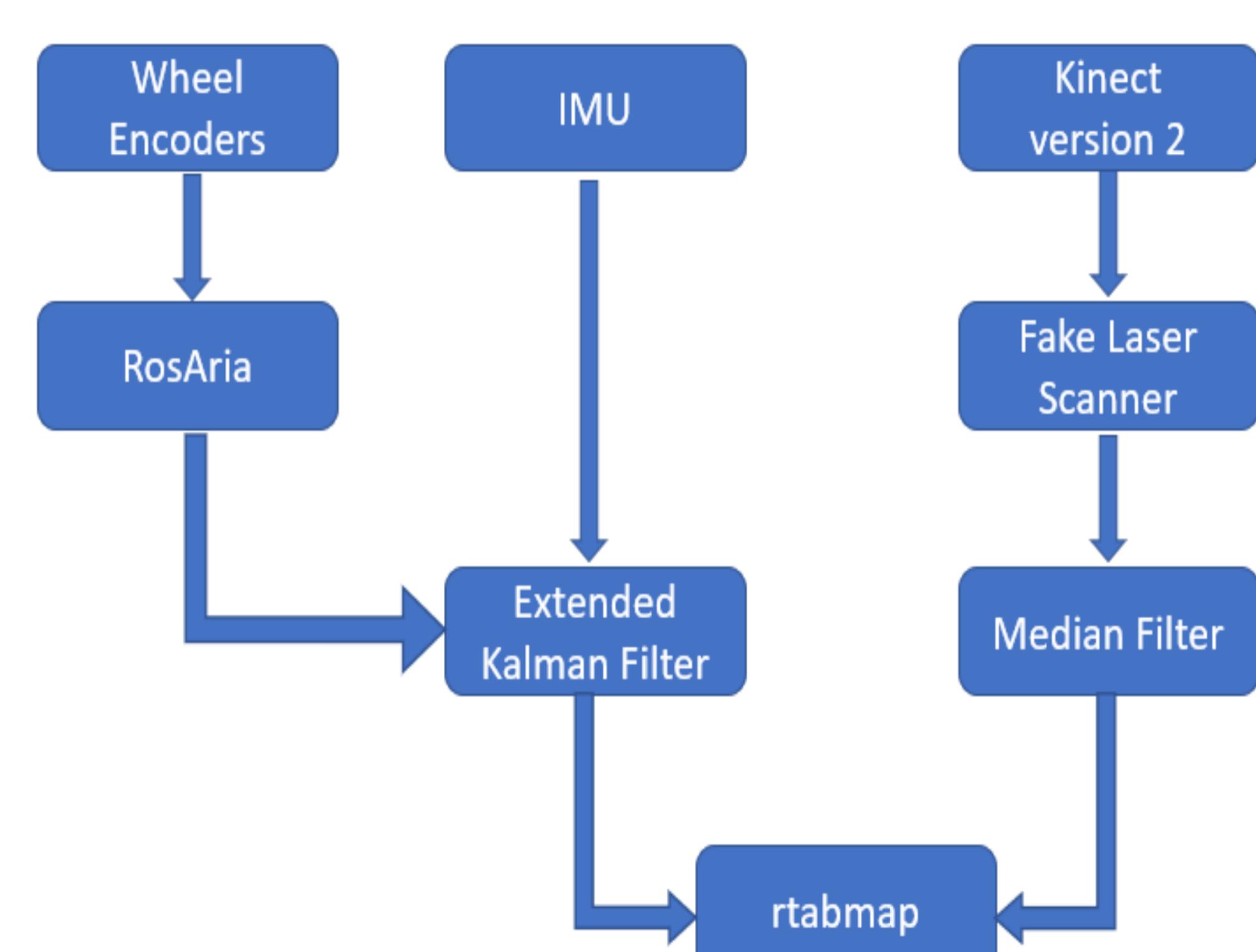
## System Description



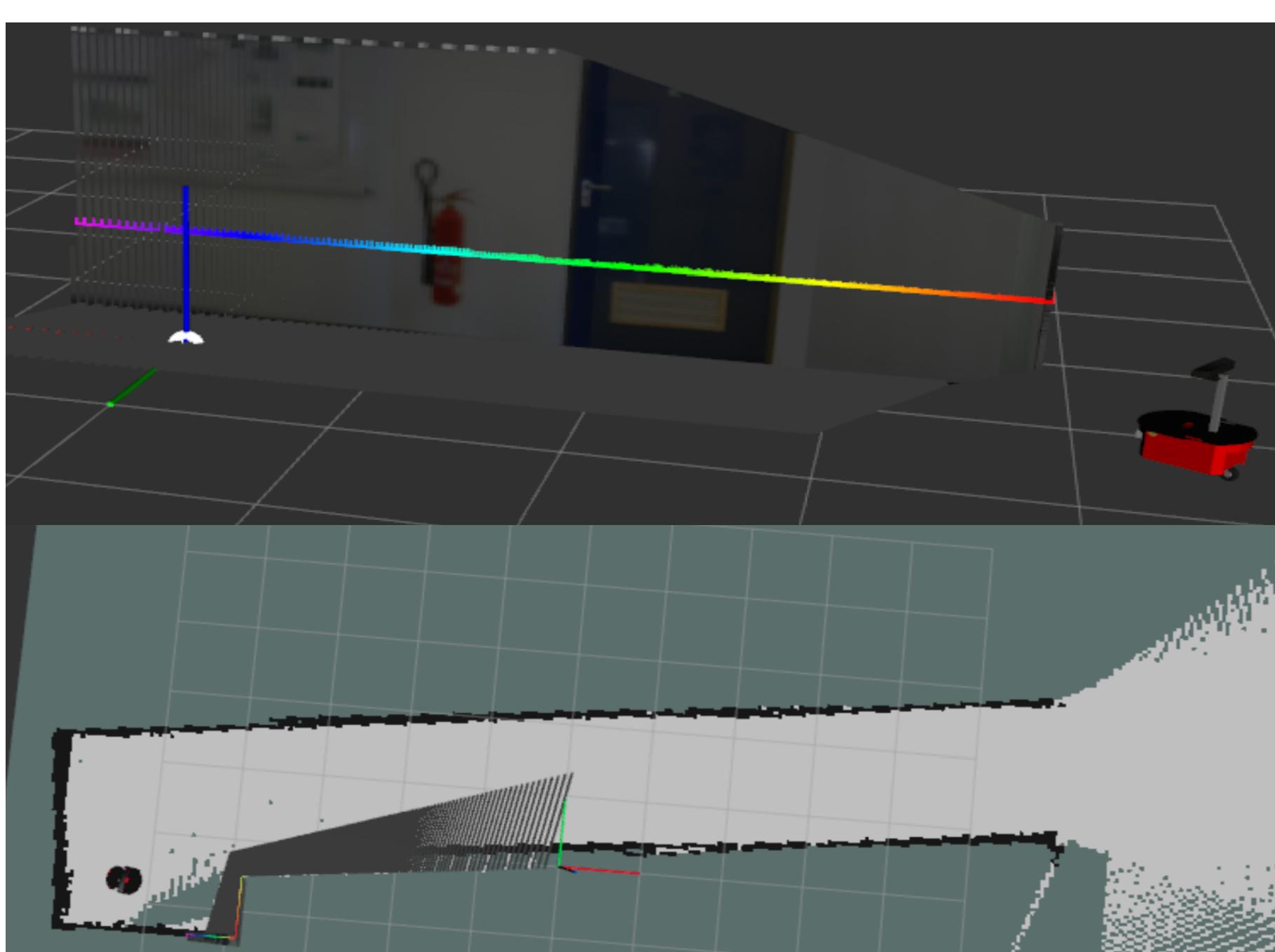
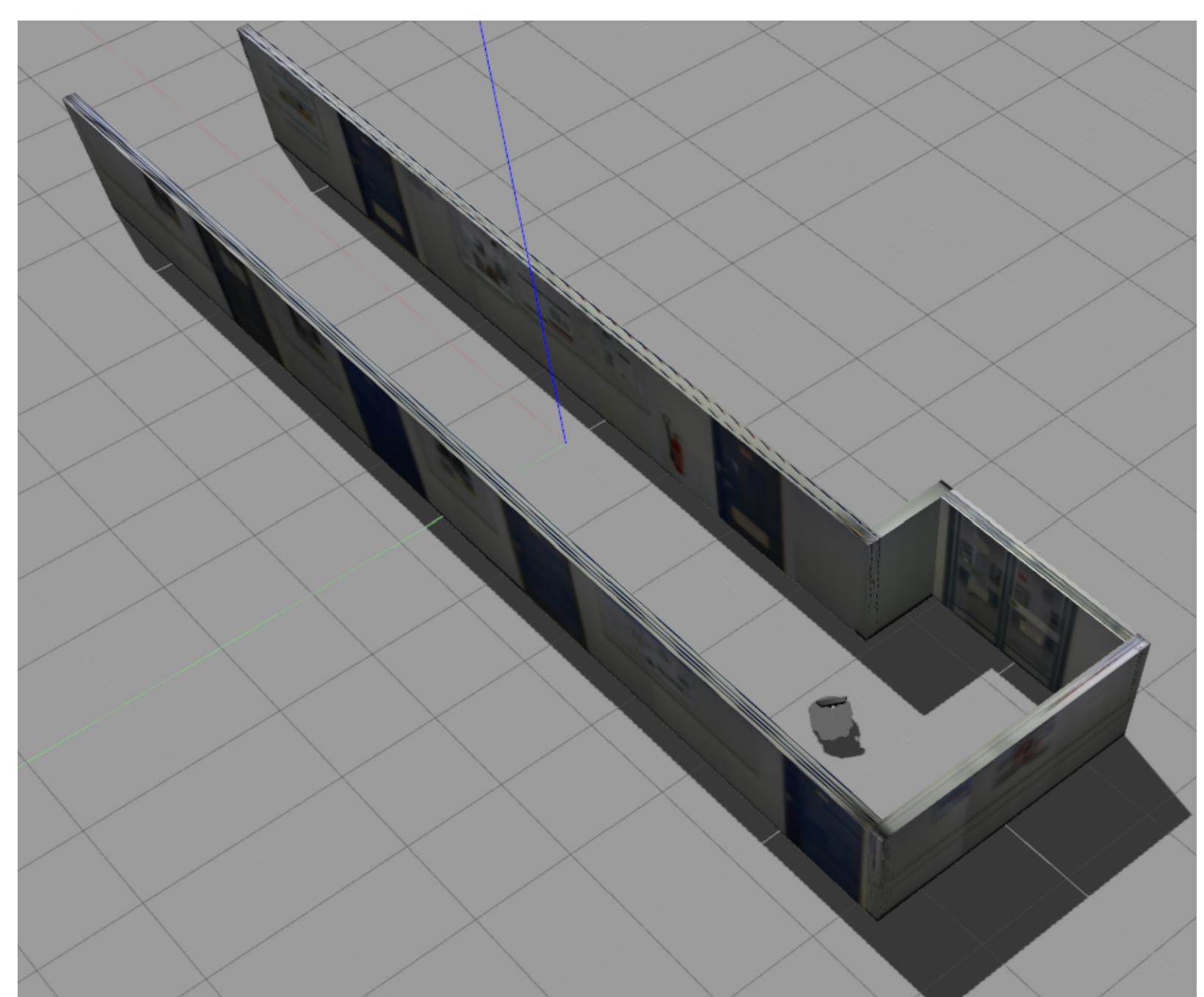
## Software

- 1) YOLOv3 (You Only Look Once)
- 2) RTAB-Map (Visual SLAM)

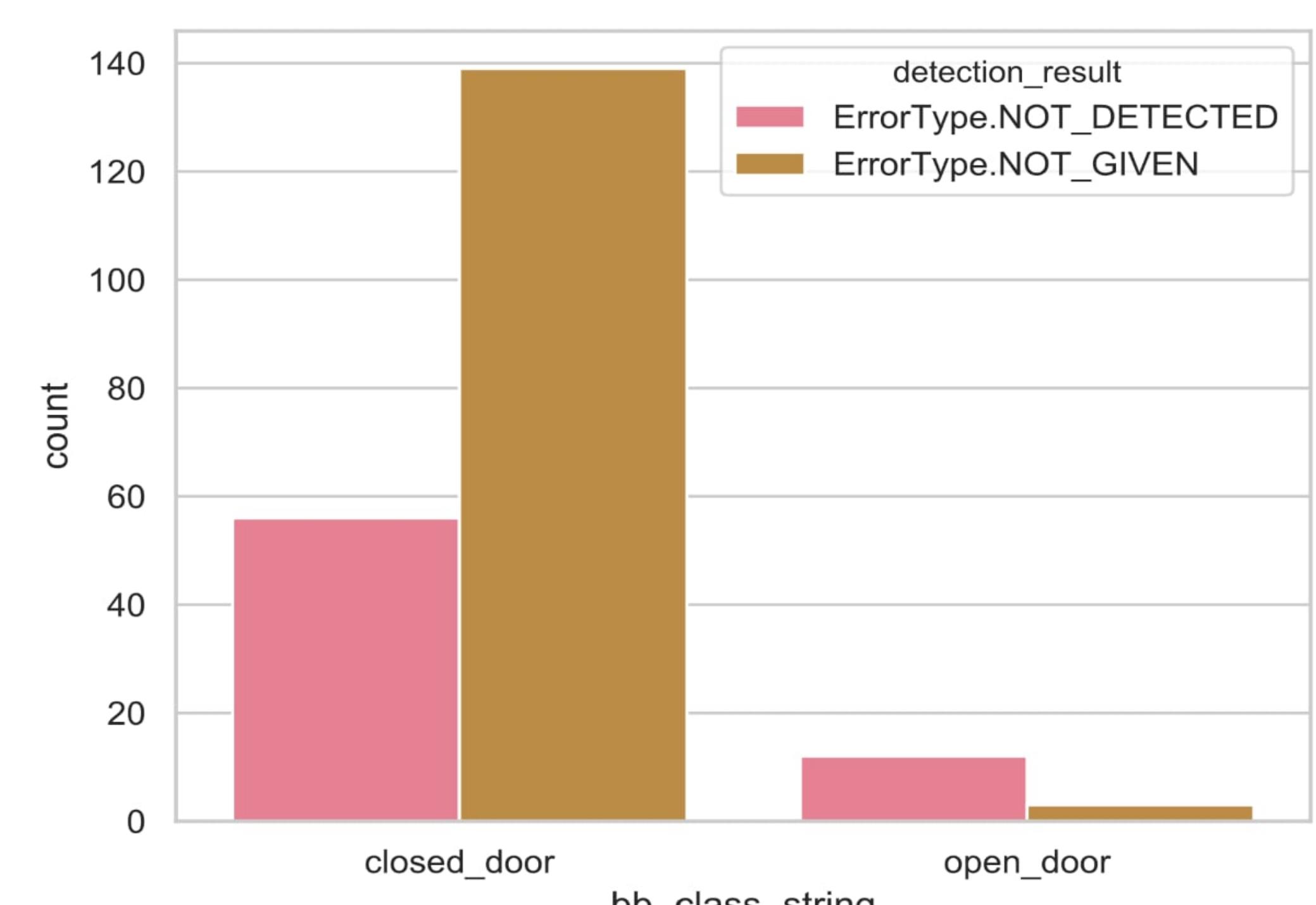
## SLAM



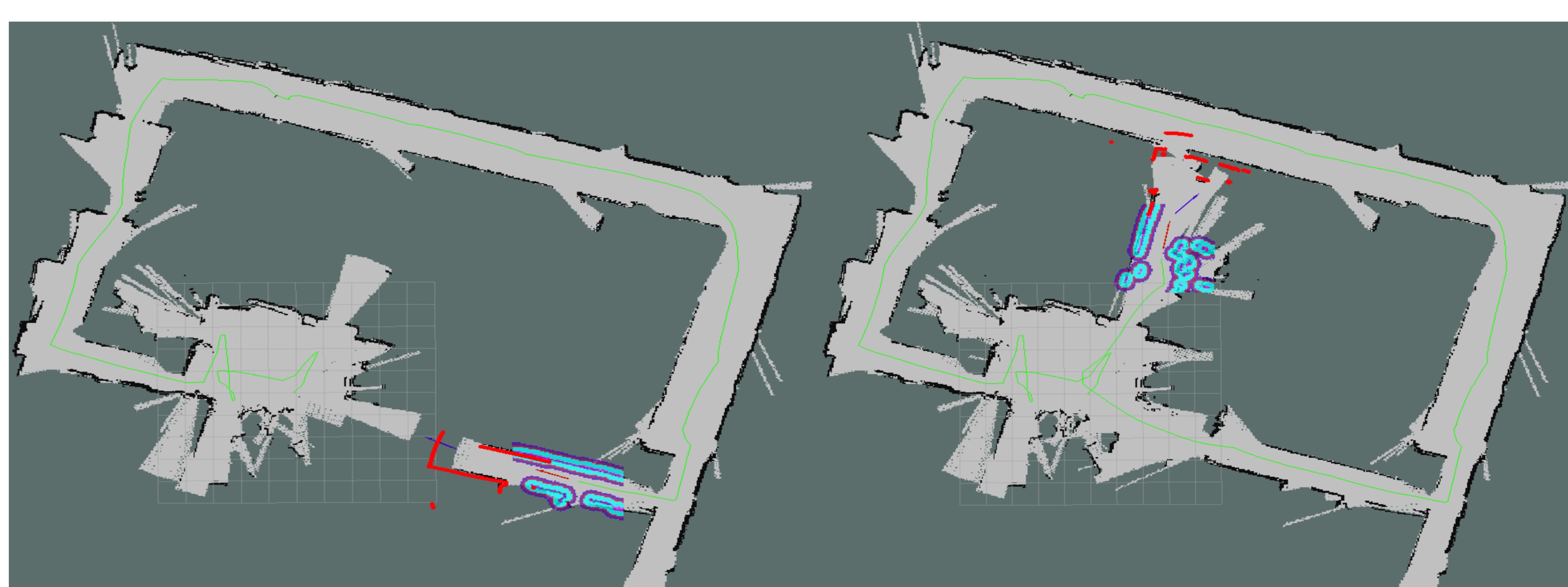
## Simulation



## Evaluation



## Loop Closure Results



## Reporter

