

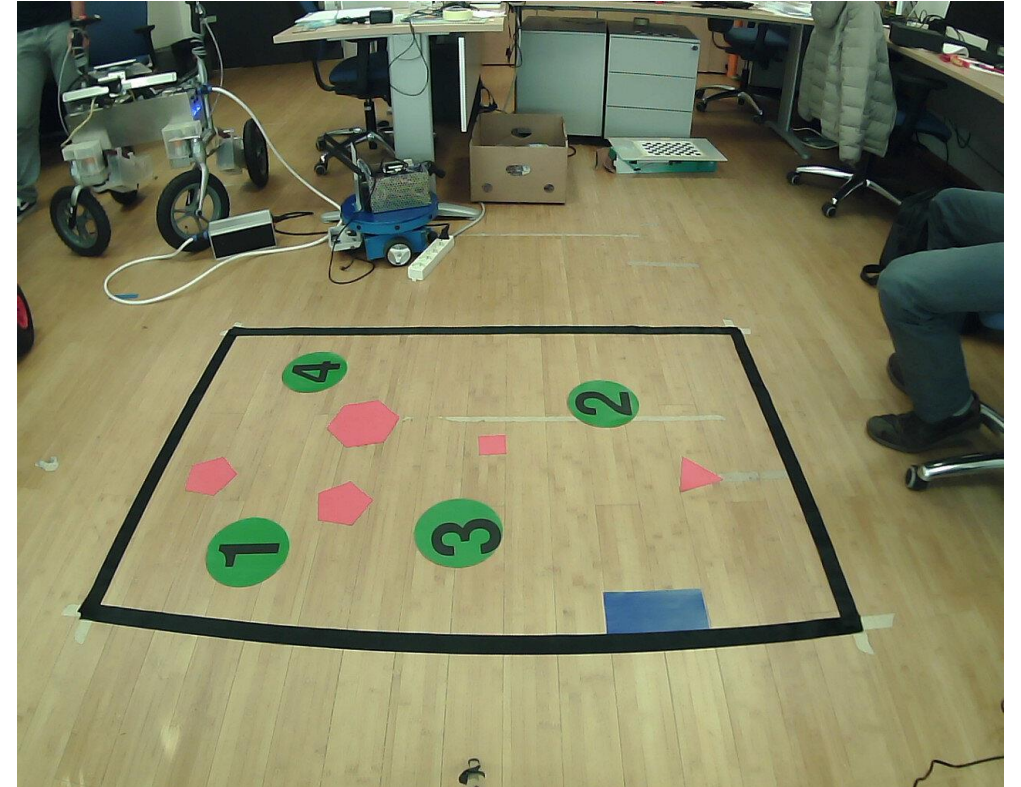
Laboratory of Applied Robotics

Assignment 1: Map Generation

Paolo Bevilacqua

Data

- Set of chessboard images for calibration
- Three images, corresponding to the same map layout taken from different camera poses



Tasks

1. Intrinsic and extrinsic camera calibration:
determine camera matrix and distortion coefficients, and perspective transformation matrix
2. Map generation:
determine the layout of the map, the shape and position of the boundaries, obstacles and gate
3. POI identification:
determine the position and the order of the points of interest in the map

Organization

- Work done individually or in small groups (up to 3 students)
- Implementation of the code to solve the given tasks
- Production of the technical documentation
- Presentation and discussion of the work