Abstract

This project involves the use of the Crustcrawler robot, OpenCV vision system and Matlab calculations to build a system able to detect a QR code with an embedded pattern, and building these patterns using Lego Dublo bricks automatically. To achieve this we used ROS (Robot Operating System) in Linux together with Python scripts to handle all the functionality. This report will seek to explain what and how the different parts of the project is realized. The actual test results are presented, and discussed in order to reflect on what we have learned throughout the course. Thus, showing the QRRobot’s capabilities in order to reflect the main goals of this project.