

PICK AND PLACE, USING ROBWORK

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Abstract

1 Introduction

2 Method

3 The Robot

4 Calibration

5 Vision

6 Robotics

In this section there will be a look at two important things. First how to find a good path for the robot to move by. The robot is of course moved by changing the joint configuration, but to avoid hitting object like a wall or the table a path planner need to be made so that it can avoid obstetrical. For that the group have decide to use Probabilist Road Map planner, or PRM planner for short. Secondly the robot need to find the right joint configuration to grasp the known object. The thing there are know of the object is point of where the robot can grasp, and the orientation of the point. There for the use of Inverse kinematics is to be used to decide multiple joint configuration for doing that. The list of different joint configuration then needs to be sorted to find a joint configuration that do not exceeds joint limits, or collided with other object like the wall or table.

6.1 Path planning

As told before, the method used for path planning has been chosen to be a RPM planner. The reason why is that the RPM planner often give a better route than that of the more f.eks. the RRT planner.

7 Discussion

8 Conclusion

References