

Proposal : Target Tracking for Robot Collaboration

Thesis outline

The goal of this thesis project is to enable a mobile Pioneer robot (slave) to follow an a priori defined target. In the case of this application, the target object will be another (master) Pioneer robot. By implementing this robot following behavior, further robot collaboration tasks can be achieved.

Student Tasks

The student will receive the following:

- Two Pioneer robot platforms (P3-AT and P3-DX).
- An example C++ program to control the robot from the Remote Control Platform
- All necessary documentation for the above

With this information, the student is required to output the following:

- A C++ program running on the Remote Control Platform which captures an image from 1 camera of the robot and directs the robot to go in the direction of the master robot
- A thesis text (in English) describing the work done

Student Profile

- Good knowledge of C++
- Sound interest in robot control and computer vision