ABSTRACT

Multi robot is a cooperative robot which used to do the same work by sharing the data through communication media such as wired or wireless. In this Final Project, the writter will discuss about wireless communication system between two line follower robots.

Some kinds of wireless module are Infra Red, Bluetooth, WiFi, dan RF. APC220, one of Radio Frequency Module, will be used in this project. This RF module has range around 200-400m. The robots will be integrated with Arduino as the processor and fulfilled with line sensor and ultrasonic sensor as the sensing tool.

In this Final Project, simplex communication will be used as the communication system. The parameters that will be analysed and tested are the influence of speed, range, and the proses of one loop program to the communication system. After had done some testing and analysing on those parameters, it results a communication between two line follower robots in order to determine the position and obstacle avoidane method.

Keywords: *line follower, simplex communication, PID, RD Module*