Abstract

In this paper, we produced a study for choosing a suitable environment for indoor localization and communication among several robots by using low-cost infrared sensors. This study is used to compare the performance of the infrared sensors for measuring the distances and the range of communication among robots at indoor environments. This environment is tested under the influence of the sun and the fluorescent lights and with different angles of viewing among these sensors. Practical circuits for these infrared sensor are built and tested in different environments with different angles of view to choose a suitable performance of these sensors.

References

Performance Analysis of Low-Cost Infrared Sensors for Multi-Robot Localization and Communication


17. Sharp 2Y0A21 distance measurement IR sensor datasheet.

Index Terms

Computer Science
Communications
Keywords

Infrared sensors, Distance IR sensor, localization, robots communication