Abstract

This paper compares the performance of two types of IR sensors that are used for communication among nodes to get the identity of each other. Practical circuits for these sensor types are built and tested in an environment which has nodes with cylindrical shape. Each node equipped by several pair of sensors: one sensor in each pair works as a transmitter and the other works as a receiver. The communication between sensors is repeated for different angles of rotation to produce a complete performance to each sensor. Based on the results of these comparisons, the TSOP4P38 IR receiver with remote control were chosen for communication in the practical implementation.


17. 5 mm infrared LED, T1-1 3/4 IR333, Technical Data Sheet, 2005.

18. IR receiver modules for mid-range proximity sensors (TSOP4P) datasheet, Vishay Semiconductors, 2010.
Index Terms

Computer Science  Communications

Keywords

IR transmitter; IR receiver; TSOP4P38 sensor,