情報電子工学科工学科　論文発表

題名	Investigation of the Accuracy of the Sensors used for Educational Robots and Effective Exemplification of the Use
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概要	In this study, the influence of illuminance and infrared on light sensors and color sensors used for educational robots was examined. Main results obtained in this paper are as follows: (1) The light sensor is susceptible to illuminance changes, and the higher the illuminance is, the more difficult it is to distinguish between white and black colors. (2) It was confirmed that the color sensor cannot identify colors correctly if it was irradiated with infrared at close range. The color sensor used in the experiment identifies colors by frequency changes of reflected light from objects which irradiates from LED. (3) It was experimentally verified that the influence of illuminance and infrared cannot be ignored in robot competitions such as line trace. (4) The senior school teams which had received the education have won national competitions in WRO fifteen years in a row and participated in international competitions in WRO held in different countries on behalf of Japan. The senior school teams have won international competitions in WRO eleven times up to the present. Students who had received the education to examine the accuracy of the robot sensor obtained excellent results in the robot competitions.
関連画像