The Resistance Reader Program Based on Image Processing

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Abstract : This paper presents the resistance reader program based on image processing by using MATLAB. The proposed program is divided into six parts; the first part is the web camera; the second part is a watt selection before shooting the resistor; the third part is a part of finding the position of the color on the mid-point of resistor; the fourth part is a part of identifying color code of the resistor; the fifth part is a part of taking the number of values for each color for resistance calculation and the last part is a part of displaying result of resistance value. The experimental result of the resistance reader program based on image processing was able to display the resistance value of resistor. The accuracy of proposed program is 85 percent for 1 watt resistor. It has 15 percent of reading error because a problem with the color code of some resistor was too bright.