

**RANCANG BANGUN *PROTOTYPE* SISTEM SORTIR BOLA
BERDASARKAN PERBEDAAN WARNA MENGGUNAKAN
SENSOR WARNA TCS230 DAN *DISPLAY* LCD BERBASIS
MIKOKONTROLER**

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ABSTRACT

The development of science and technology makes the quality of human life more developed, as well as some plastic ball industry companies currently still grouping or sorting balls manually by humans as we know that humans have limited ability to think and often feel bored and tired as a result, the work time of the work takes longer and has an impact on decreasing the productivity of the company. Based on this research, the researcher made a prototype of a ball sorting system based on color differences using a TCS230 color sensor and an LCD display based on a microcontroller. In researching a colored ball can classify differences based on the color perpendicular to the color moving on the TCS230 color sensor, this sensor reads the color on the ball then the LCD displays the detected color and classifies the ball based on color differences. So that why, this sorting tool is a solution for companies making plastic balls to accelerate the company's productivity. From this tool, a ball sorting system prototype is designed based on color differences using TCS230 color sensor and LCD Display and this sorting activity will be controlled using a Microcontroller with the Atmega328 microcontroller.

Keyborad : TCS320, Microcontroller, prototype, LCD display, Sort.

