ABSTRACT

The robot has been developed, because the robot is useful to help the working man for example, for jobs that require high precision in the fields of industry, doing work with a high risk of danger or doing jobs that require great strength and so forth. In the field of industrial robots in the presence of the production process will be faster. Usually in the industry - the industry to distinguish the type of material the object is marked as the color of box or codes - other code that can distinguish box. The same sign on the box states the same type of material. In industry, production of goods will be grouped by type of material or goods of the same.

The robot is designed using a DC motor to drive the wheels with the IC L298 as motor drivers, sensor line as a line detector, the robot can lift boxs and place of destination in accordance with the color. This robot can only detect three basic colors, namely red, green, and blue. The color RGB (Red, Green, Blue) was detected using a color sensor TCS3200 output frequency, the frequency of the generated depends on the wavelength of the object color and light intensity. Meanwhile, as the central control of mobile robot using a microcontroller basic stamp, which is programmed using basic language.

The design of the robot can move the box aims to match the color and the way in the tracks that have been determined.

Keywords: Basic stamp, box, TCS3200, RGB, Robots.