

ABSTRACT

When this robot is not something foreign to all human beings. Robot used to help many working men in almost all fields. One example is the match in Indonesia Smart Robot Contest (KRCI) 2009 will be playing a robot that can fire extinguisher with a few rules. However, the constraint that often in the face of the Smart Robot Contest is a robot on wheels, in which robot walk with the choked-stagnant.

Therefore, to avoid walking robot with a choked-stagnant, then in the end of this project will be designed components called frequency to voltage. In design, wheel robot using opto coupler to read the frequency. This frequency will be the input frequency to voltage, controlling a robot using the setting wheel AT Mega 8535 and integrated ADC (Analog to Digital Converter) is in, is done by controlling the voltage value of voltage to frequency IC.

It is expected that the design of the device's frequency to voltage can be implemented in the robot. So that the rotation of wheel robot perfect or become fluent and not stagnating - stagnant.

Keywords: IC frequency to voltage, PWM (Pulse Width Modulation), opto coupler, Microcontroller AT Mega 8535, ADC (Analog to Digital Converter)