

ABSTRACT

The control system is made to be able to control a system to work in accordance with what we want. In the life of an increasingly modern, versatile automatic control equipment as if it has become a necessity. One is the automatic hand dryer (Hand Dryer). This hand dryer is not only installed on modern toilets, but also mounted on fast food.

It required a heating fan control of this hand dryer that takes into account the state of the user's hand range, so that the fan speed can be reduced automatically to increase efficiency and energy savings. This system uses a Raspberry Pi to implement Fuzzy Logic method governing ultrasonic sensors to control the hand dryer. Here ultrasonic sensors are used to detect the distance of the movement of the hand. Data from the sensors is then sent to the Raspberry Pi. By using Raspberry Pi is the input data from the sensors will be processed and sent to the Arduino Uno to control the voltage at the motor hand dryer.

From the results of research and testing, the system that has been created has shown a decrease and an increase in fan speed. system seen trying to keep the fan speed according to the distance of the user's hand, the closer the user's hands will be the slower the fan speed and vice versa. In general it can be concluded that the decrease and increase the fan speed affect the size of the power consumption thus saving power and improving energy efficient.

Keywords: Hand Dryer, Fuzzy Logic, Raspberry Pi, Ultrasonic