

**PROTOTYPE HAND DRYER DILENGKAPI LAMPU UV
DENGAN TAMPILAN LCD BERBASIS MICROCONTROLLER
ATMEGA8**

Ahmad Wahyu Apriandi

Program Studi D3 Teknik Elektromedik

Program Vokasi Universitas Muhammadiyah Yogyakarta

Email : abu999andi@gmail.com

ABTRACT

Automatic hand dryers currently represents one of the utilization of technology is widely used in malls, restaurants, hotels and hospitals. The virtue of this hand dryer is a high level of hygiene. In this final project created a tool automatic hand dryer equipped with a UV lamp based AVR microcontroller ATmeg 8 using a hand dryer in which the infrared sensor will be activated if the sensor detects the presence of objects that hand. The advantages of this tool in addition to functioning as a hand dryer is the display or display the words when active or inactive.

Basically, this dryer module consists of an infrared sensor module and a controller module to activate the hand dryer, UV lamp and display. The sensor used is a infrared sensor and produces a light wave. The light waves are transmitted into the amount of voltage by the photodiode. The magnitude of the voltage generated by the photodiode depends on the size of the radiation emitted by the infrared. The comparator is used to compare the LM358 IC output from the photodiode to the reference voltage at the comparator to obtain binary data (0 or 1). binary data that will be processed by the microcontroller to provide instruction on circuit switching. So that the dryer can be active on and off after 20 second automatically.

Keywords : *infrared sensor, microcontroller, comparator, display.*