

ABSTRACT

Blood is a liquid that is essential for the human family because blood distribute the things that are needed by the human body, namely the transport of water or minerals, oxygen and others. Without enough blood, people will experience health problems and even death.

Since the blood plays an important role in the human body, then someone needs to know her blood type, any time it happen that are not desirable and needed a blood transfusion quickly then one is no trouble. That's the reason made Detector module Blood Detector Equipped With Rotator Shaker and Reagent Injection Based Microcontroler.

Blood Detector Equipped With Rotator Shaker and Reagent Injection Based Microcontroler is used to determine the blood type on pasien. there are four tubes containing reagen Antigen-A, Antigen-B, Antigen AB and Antigen- -D which will be mixed with blood. The way the operation of the module, when pressed the button on the LCD initialization occurs if initialization appears on the LCD then press the start button and the process of mixing antigen with blood began. If the mixing process has been completed the results of blood types appears on the LCD.

Detection of blood group patients seen from two factors, namely agglutination and no agglutination. sensor module is used White LED and LDR, where White LED as a transmitter and LDR as a receiver.

From the results of measurements of each reagent on blood group A, B, AB, O, obtained average error = 0.0375%, so this module has an average error below 5% (<5%), then it will be serve

Keywords: Reagent injection, Blood type , Rotator shaker