

ABSTRACT

In both blood transfusion unit at the Hospital and blood transfusion unit, blood donation services is done manually which already contains the blood bag blood donors at blood drives held move by hand. The goal is to mix the blood with anti-coagulant solution is in the bag so that blood does not clot blood at blood donation took place. These actions are not effective and practical in the era of the all advanced and sophisticated as it is today.

Therefore, the authors make this Automatic Blood Collection Shaker is an equipment used for blood donor sieving / shaking the bags of blood so the blood does not clot during the process of ongoing donor. The workings of this instrument is the use of weight sensors Load Cell or can be called a scale. Load Cell weight sensors will work based on the weight that goes into the bag. Weight will be converted into a voltage which is then converted into digital data by the internal ADC found on the ATmega8 and displayed on the LCD.

After making the process of planning and literature studies, experiments, testing and data collection tools, the authors concluded Automatic Blood Collection Shaker tool is able to show an increase in blood volume of each multiple of 20 ml of the initial volume of 0 ml to 350 ml of blood into the bag with the % error for each increase is 0%.

Keywords: *load cell sensor, microcontroller ATmega8*