

## ABSTRACT

Water is a vital necessary for human survival. Water existence, especially clean water that meet quality, quantity, and continuity is needed to raise people's health. PDAM as a company that responsible for clean water distribution to people must have management with good competency. One of management that mention is procurement, installation, and monitoring from discharge of water device.

On this final task, was made device of flowmeter digital which function is to measure and monitoring discharge of water and payment of water distribution with prepaid system. So people can monitoring the needs of water distribution. This device consists of flowmeter block, ATmega 8535 block, Real Time Clock block, Solenoid Valve block, blok keypad 3x4, and LCD block. On flowmeter block arranged by optocoupler sensor that can read plate of degree. Output Signal optocoupler sensor would come to comparator IC to give logic "1" and "0" in microcontroller. Result from the read of sensor would be convert to the usage of amount water (litre) and displayed on LCD. When the usage of remaining water is 0, then solenoid valve is not active, alarm would be activated it and user must input the number of pulse.

After measuring and testing, DC power supply 5 volt have been realized the error rate level 0,0001 with 99,99% accuracy. Whereas the digital flowmeter device that is realized can work when counting amount of water and LCD displayed the remaining water that had been used.

Key Words : Water distribution, Microcontroller ATmega 8535, flowmter, solenoid valve keypad valve 3x4.