ABSTRACT

Sterilization in microbiology is a process to kill all organisms present in or on a body there. Sterilization is an act to kill pathogenic bacteria and spores and their apatogen on treatment and medical equipment by boiling, steem, high heat, or use chemicals. Wet sterilization sterilization is a process that utilizes the results of the evaporation of water, where the water vapor produced from heating the water. In addition, wet sterilization process which directly utilize the water heating process, a process similar to the process of boiling water. Rules that are used in aircraft wet sterilizer is change electrical energy into heat energy, where the energy is used to change the element which serves to heat water to produce steam. All equipment will be put into place sterilized water, and then heated to a certain temperature.

On the plane Sterilisator Wet process undertaken earlier still using the manual system setup time (mechanical timer). Water charging are still using manual systems. and conditions are broken. In addition this tool when taken from Hospital Sayidiman Magetan module is stored in the warehouse. This causes some problems for the modification process, including the rusty Heater.

Therefore, the author would like to modify the wet sterilizer with the use of IC programmer Microcontroller as digital time and temperature. And use as a filling valve automatically. In addition there are a few additions to the device functions, such as water level and display temperature and timer display and appearance. Rusty heater was repaired to maximize the performance of the module.

Based on the measurement results are compared with the thermometer at 100 oC, mistake or error factor in getting by 2.91%.

It can be concluded at this Wet Sterilisator plane using a voltage of 5V to run all the systems, Vref of 0.6 volts, VREs of 0.0047 mV / bit, valve open with logic 0, the heater will work with providing a logic 0, and the use of 8 menanmpilkan seven segment for temperature and timer. And can be operated successfully with the addition of a series of additions to the program temperature settings and time settings so that the length can be adjusted to the needs sterilization.

Keyword: Heater, Timer, Microcontroller, sterilizer.