## **ABSTRACT**

Distillation is one of purification method by dissociate two or more components in a fluid based on vapor pressure difference of each component. The influence factor of distillation process are the material, temperature, volume, and distillation time. To get a good distillate, temperature must be constant throughout the liquid in the flask. On the organic liquid, the heating cannot be distributed directly because can make the organic compound easy to burned out and broken.

For that, in this thesis the author trying to make "Heating Mantle for Distillation" with temperature setting 71°C and time setting 5 hours. The author designed by using IC mikrokontroller At mega 8535 as the main contro for timer and temperature control with 7segment display.

Based on analysis results can be concluded that the equipment is be able to run well with error value from 5 hours time measurement is 0,977% of Error and error value from 71°C temperature measurement is 0,98% of Error.

Keywords: distillation, time, temperature