ABSTRACT

The development of today's technology has been developing very rapidly, including the development of the air conditioner or Air Conditioning (AC).The use of this technology include high, especially in big cities. Current extreme weather makes temperatures continue to change or weather anomalies often said. Use of Air Conditioner (AC) as an alternative to replace the natural ventilation can increase comfort and productivity. But this use of air conditioning can give a negative impact on the environment, that is destroying the ozone layer. To reduce the negative impact, one way to improve the efficient use of air conditioning in one room, namely the need to adjust the temperature according to the number of people in the room.

Therefore, the Final Project was designed a device using a microcontroller to regulate the temperature of air-conditioning automatically. This tool serves as a remote but can be changed automatically according to changes in the number of individuals as well as the measured temperature in the room. To determine the number of individuals who are in the room, used infrared and the changes displayed by the LCD. While the room temperature measured using temperature sensor LM35. The tool will serve to balance the state room temperature by the number of individuals.

The results of this Final Project is producing an air conditioner thermostat automatically by using a microcontroller, infrared, and temperature sensors. This tool can raise or lower the temperature of air conditioner automatically according to the number of individuals as well as the measured temperature in the room.

Keywords: microcontroller, infrared, water conditoner, temperature sensors