

## **Development of Automatic Mini Fan with Human Detector by Using PIR Sensor**

### Abstract

This project will present the design, construction, development, control and evaluation of an automatic function of electric fan. Fan is the important thing for circulation of air. The development of Automatic Mini Fan with Human Detector System by Using PIR Sensor presented in this project is required to fulfill the requirement of technologies today and it had been fabricate with new design. The automatic mini fan with two types of power supply which is Alternating Current (AC) and Direct Current (DC) can continuously function if one of the power supplies cannot be used. The human detection systems by using PIR sensor are implemented in this project and the detection range is up to 13 feet. The temperature sensors which maximum 70 C that are used in this project can automatically control the speed of fan up to 225 rpm. This automatic mini fan with human detection system contains combination of sensor, controller, motor and two types of power supply that controlled by Arduino UNO as the main controller. This project also presents the expected performance of the automatic mini fan with human detector system which the fan can rotate 0 to 180 and the construction of hardware and software development to gather the performance data. Finally, this project can give many benefits to people because it is portable and can save electricity. The result of this project becomes useful in the future.