

## **ABSTRACT**

Research about robotics have been develop well for past recent year, because people need some help from robot to do their jobs, such as high accuracy job in industry, high risk job, or doing some jobs that needs extra power or etc.

Mobile robotics is a specialized branch that explain spesific detail about robot that can move with legg (legged robot) or with wheel (wheeled robot). The movement from one point to another point, now means as navigation.

Prototype of firefighting robot made as one of simple research to create robot that can complete task to search the candle and extinguish it. This prototype using ultrasonics sensor, heat/thermophile sensor, light sensor, water sprayer, servo motor, dc motor and bluetooth, which means all mentioned device connected with one microcontroller/microprocessor board called Serializer. So, this board able to give command for robot to adapt with it's environment and take a decission to do something.

The firefighting robot can move with full autonomous system without any interruption from external system, like remote control. This prototype can navigate through a maze with some algorithm technics, and then searching a candle and extinguish it.