

## **ABSTRACT**

Range meter sensor usually can be used for many things. In example : car range meter, robot, etc. Sensor which are usually be used are infrared and ultrasonic. Infrared sensor have many consequence, like the distance is very limited, interference with light if it be used in outdoor, and must be in line of sight. Ultrasonic sensor can be used to substitute infrared for distance measurement. But instant ultrasonic sensor, the price is very expensive and the capability is limited too. The use of microcontroller hopefully can answer this needs.

The realization of this range meter sensor is using ultrasonic sensor to measure the distance by compare the time when its release and accept the wave . For the processor, the AVR microcontroller is used fully, like alarm for its user.

This Final Works develop range meter which used ultrasonic sensor based on AVR ATMEGA8535. Hopefully, this circuit can be used for many things like autonomous mobile platform, car range meter, and robot.

Key words : proximity sensor, ultrasonic, microcontroller, alarm