Ultrasonic Sensor Test Process

Purpose: To validate the readings received from the sensor and the interpretation of those readings.

Materials:

* One 40 cm ruler
* One 8”x11” piece of paper/log book
* One Axman board + circuitry.
* One meter stick

Procedure:

1. Place the ruler’s 0mm mark in-line with the edge of the ultrasonic speakers/sensors. The 0mm line should be parallel of the farthest protruding edge of the speaker cans.
2. Place the sensor/Axman unit elevated off the ground, so that the ground is not close to the sensor, which could affect results (bouncing of waves).
3. Hold the piece of paper/log book at regular (10mm) intervals along the ruler, with the paper being parallel with the PCB of the sensor. (Perpendicular to the sensor’s ultrasonic path).
4. Continue until reaching the end of the 40cm ruler.
5. Now replace the 40cm ruler with a meter stick and increase the increments by 5cm, instead of 10mm.