The purpose of this investigation was to determine the feasibility of designing a satellite radar device which is capable of detecting stealth weapons. To determine this, I used in my experiment an ultrasonic device to emulate a radar device. I hypothesized that if a stealth object were placed between the ultrasonic device and a wall, then the stealth object’s signal strength would be lower than the signal strength of a normal object placed between the ultrasonic device and a wall. I also hypothesized that the signal strength returned from the wall with a stealth object would be lower than the signal strength returned from the wall with no object in the way.

The experiment involved connecting the microprocessor to the ultrasonic emitter via a breadboard and plugging it into the laptop. The program that allowed me to read the information was downloaded from the laptop. Code was input into the microprocessor telling it what to have the ultrasonic emitter do. The microprocessor and ultrasonic emitter were then placed 91.44 cm from the wall. The code was uploaded and executed, and the information was read off the laptop screen. Five trials were performed for each independent variable (normal object and stealth object) and the control. The data collected supported the original hypothesis. The microprocessor read both the normal object and stealth object as decreasing the signal strength returned from the wall. The microprocessor read the stealth object as smaller than the normal object. These findings lead me to conclude that if any stealth missiles or aircraft flew through the path of radar microwaves set up in a similar manner, then the radar satellite device could detect these stealth weapons based on the decrease in signal strength of the radar microwaves received back from the ground.