SYNOPSIS

The aim of our project is to design a missile launcher which is controlled by the signals from a SONAR. The working is based on Arduino Nano, Servo motor, Ultrasonic sensor. The idea is to first code the entire working using our previous knowledge of programming. The code will then be simulated on software and later be interfaced with the hardware or Arduino nano.

The ultrasonic sensor movement is maintained by the servo motor fixed within it. The servo motor is made to revolve through fixed angles; if object is detected then the angle position is sent as the input to the launcher fixed servo motor. The launcher will release the missile fixed within it. This project will play an important role in defense purposes.

Automatic Missile Defence System destroys aerial targets like aircraft, high-altitude ballistic missiles, and low-altitude cruise missiles. Missile defense systems are really important for a nation like India which is surrounded by hostile neighbors. A Surface to Air missile is a very high speed (2-4 times the speed of sound) missile that is used to engage aircraft and cruise missiles.

It has excellent acceleration and a small warhead. It is usually guided by radar or Infrared.Some of these missiles like RBS 70, Shtil, SM-2 can be used against surface targets as well. But They won't be very effective as their warhead is designed to destroy a delicate target like an airplane and not structures like buildings or armored vehicles like tanks.