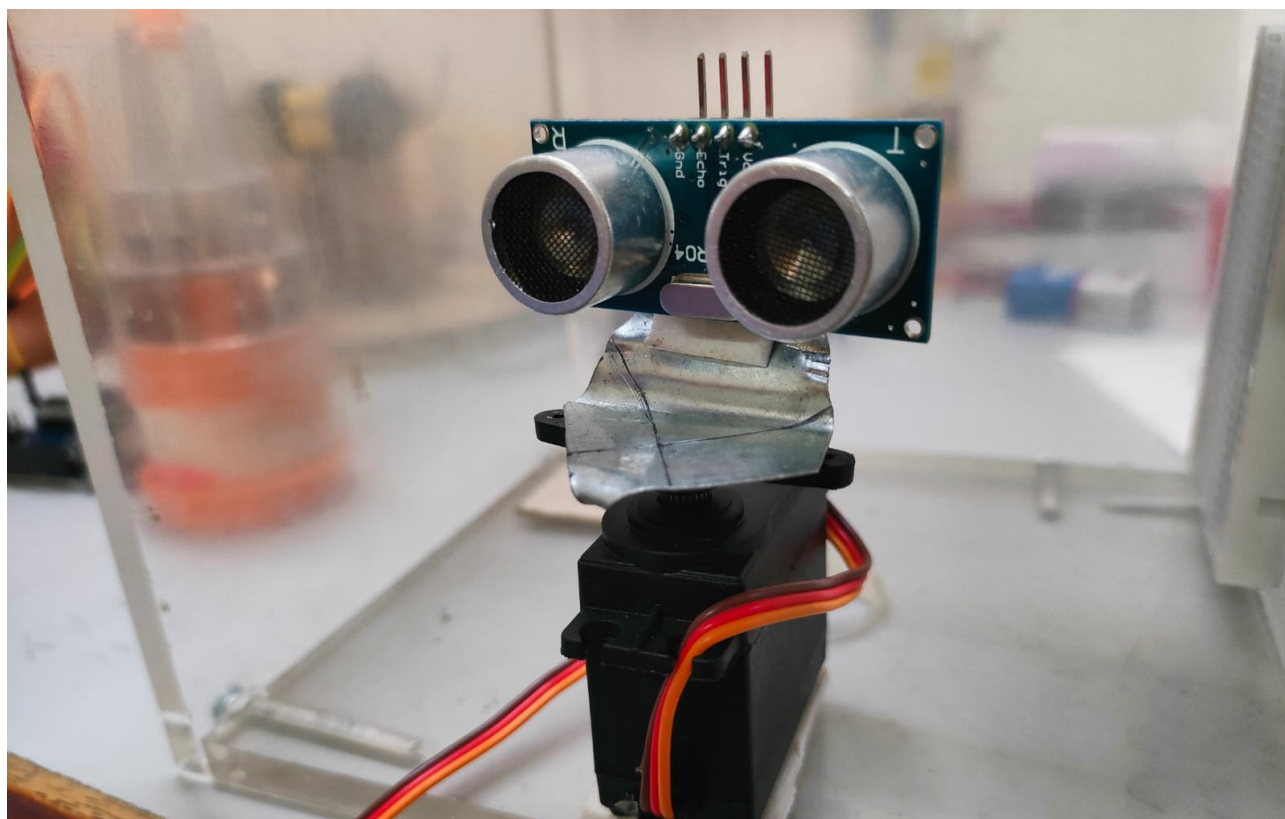


Iron Dome consist of radar, computer and firing mechanism.



RADAR: Ultra sonic sensor fixed on 180 degree servo motor through metal piece in front of computing system.

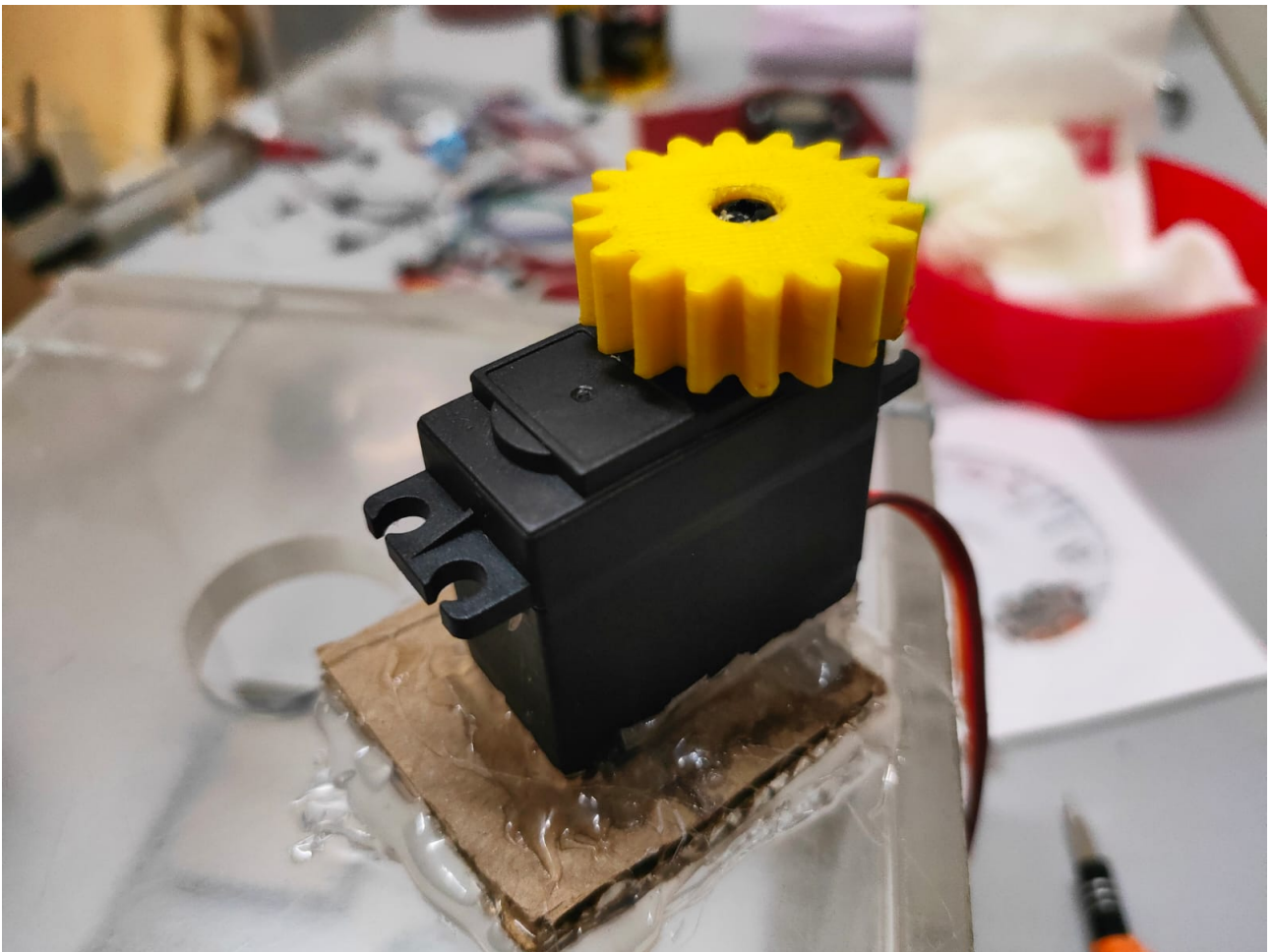
Ultra sonic sensor reads distance and if any thing comes near sensor in 20cm, below servo will detect angle of that and send degree to Arduino.

Computing system: Arduino is used

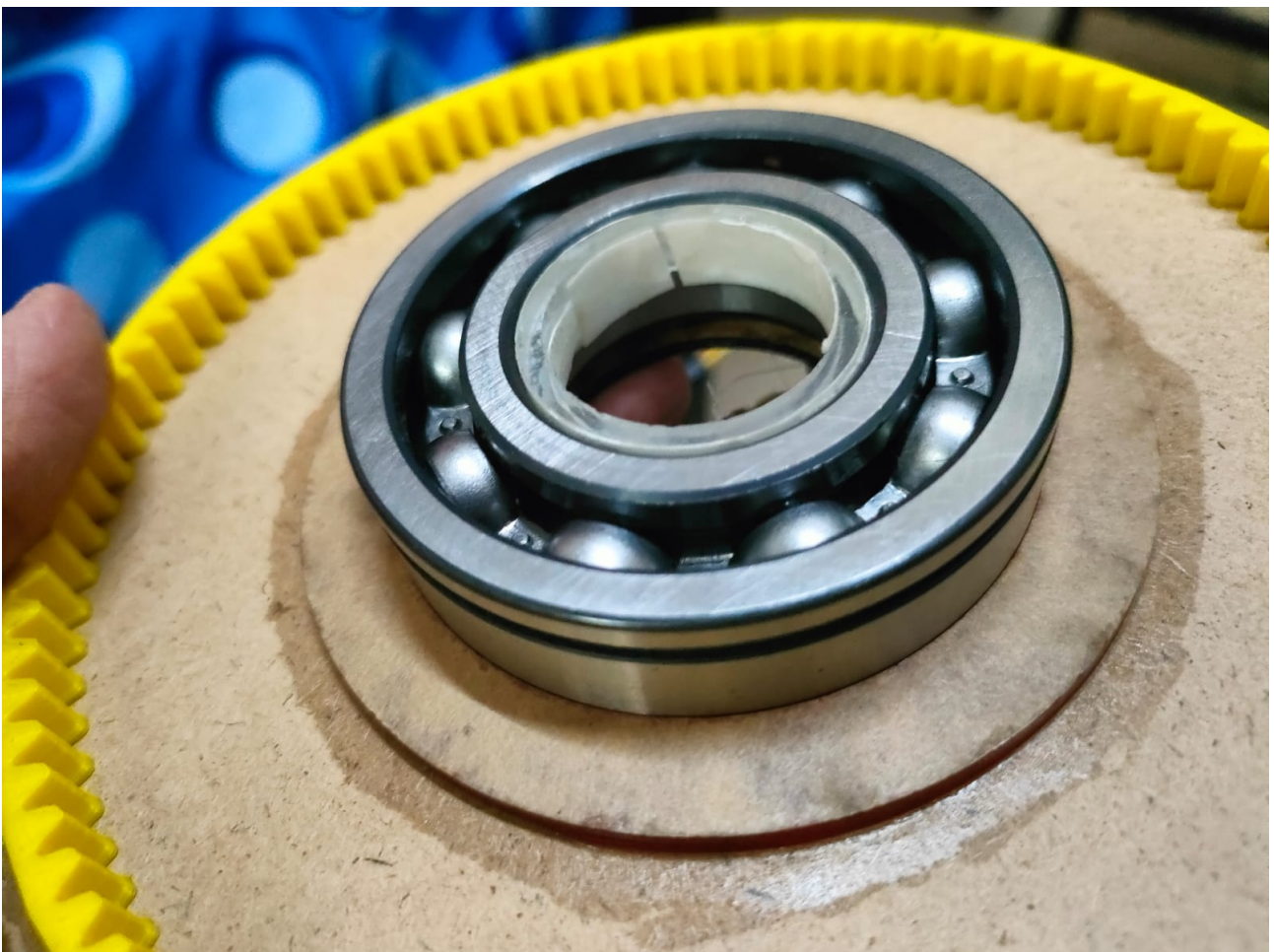
Firing Mechanism: Firing mechanism consist of angle locator and trigger system



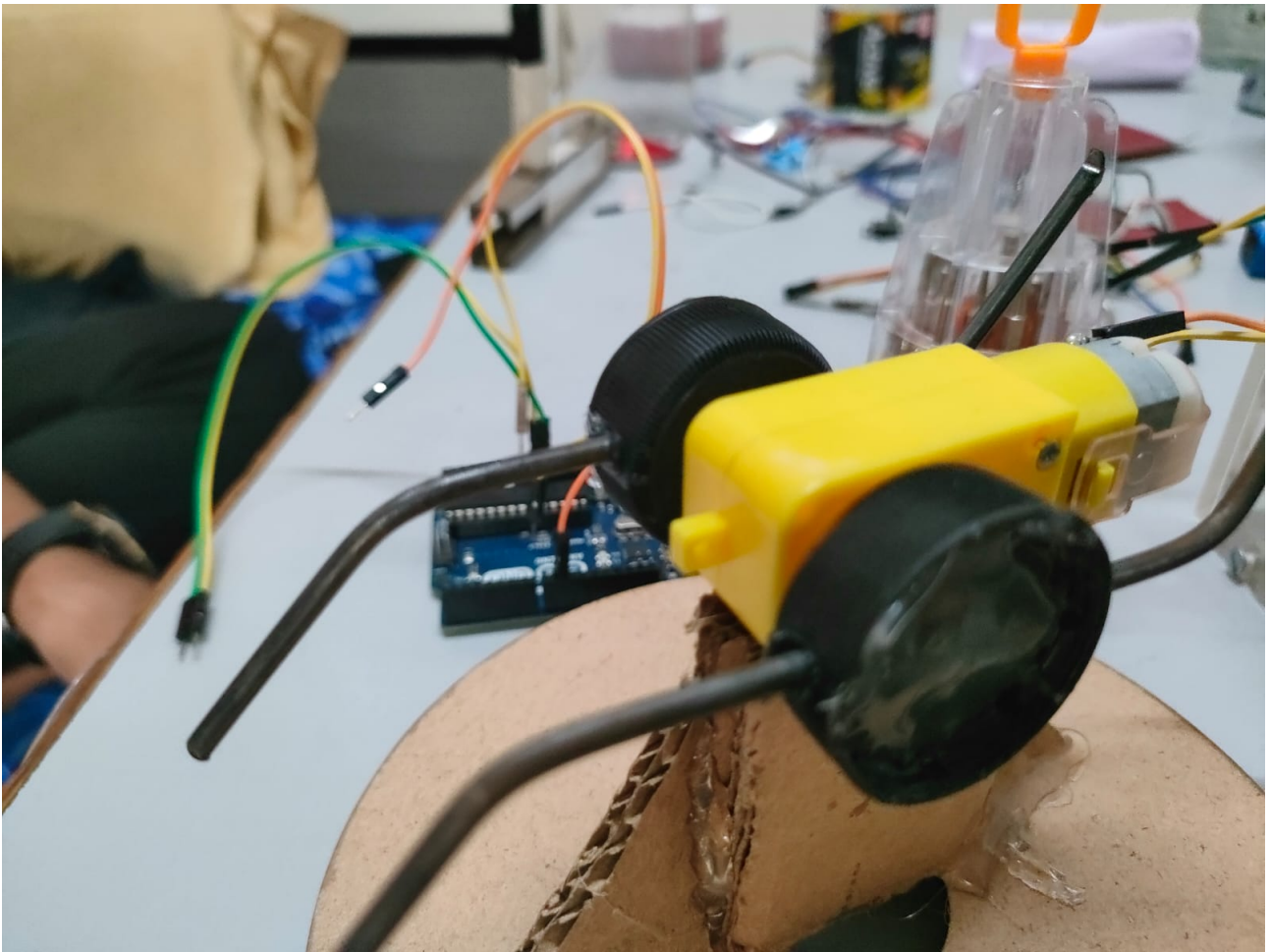
Angle locator: A Internal gear of 1:5 ratio is fixed



Internal gear is rotate through 360 servo motor having 18 teeth 3d printed gear
Angle detected from radar is mathematically converted in Arduino and send to 360 servo to rotate



3D printed having 90 teeth fixed below gun platform and it easily rotate through bearing of 62 od and 32 id.



After gun platform fully rotate to particular angle, motor will start spin anti-clockwise,
FOR SAFETY PURPOSE WE REMOVE ACTUAL GUN AND A MOTOR SPINING demonstrations.