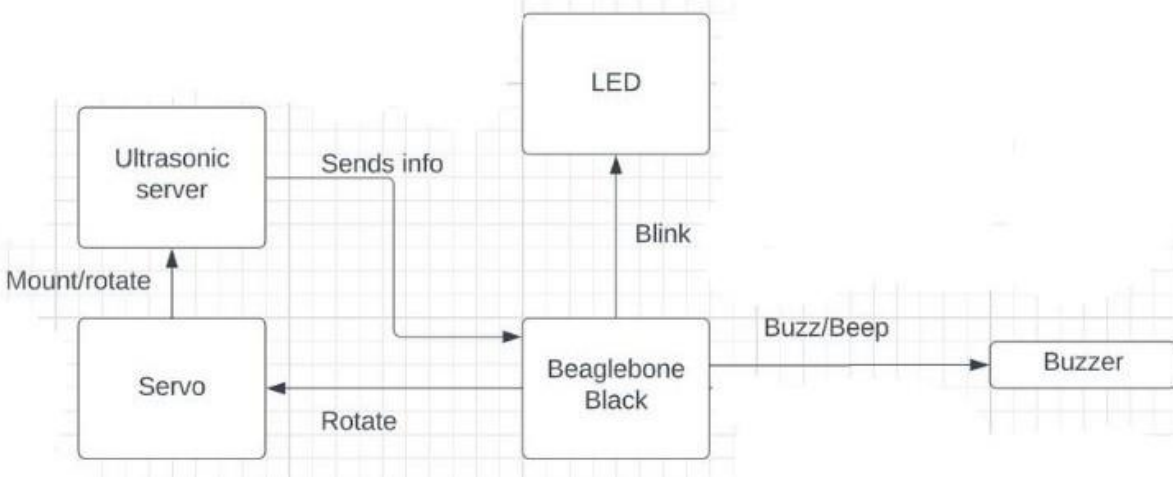# Final architecture

The final architecture diagram shows the working of each and every component as planned.

The ultrasonic sensor is mounted on the servo motor. The servo motor and the ultrasonic sensor both are connected to the beagle bone black. The beagle bone black also controls the red and green LEDs, when they will be turned on and finally the beagle bone black also controls when the buzzer buzzes.

Final design Flow chart
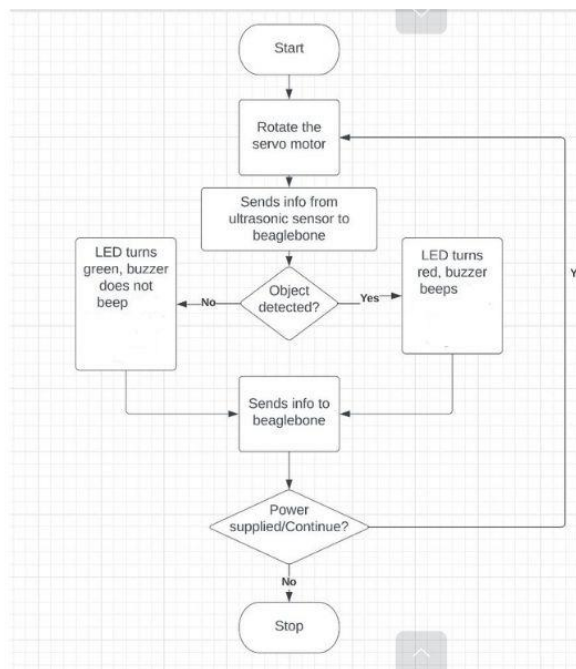
The ultrasonic sensor sends the pulse and detects the object, sending the information to the beagle bone. The beagle bone continuously rotated the servo motor on which the ultrasonic sensor is mounted simultaneously the beagle bone also calculates the distance of the object based on the input from the ultrasonic sensor. Then the ultrasonic sensor decides whether to turn on the green or red LED based on the distance of the object if it is within 30 cm or farther than 30 cm. The beagle bone also decides if it needs to buzz the buzzer or not depending on the distance of the object from the sensor.