

SMART DUSTBIN PROJECT

BY:-ABHI RAJ

Project Explanation: Smart Dustbin is an automatic, touch-free dustbin made using Arduino. It helps to maintain cleanliness and hygiene by avoiding physical contact. The ultrasonic sensor detects the presence of an object near the dustbin and controls the servo motor to open or close the lid automatically.

Components Used:

1. Arduino UNO
2. Ultrasonic Sensor (HC-SR04)
3. Servo Motor (SG90)
4. Breadboard
5. Jumper Wire

How It Works:

- The ultrasonic sensor continuously measures the distance in front of the dustbin.

- When an object comes within 15 cm, Arduino sends a signal to the servo motor.
- The servo motor opens the dustbin lid immediately.
- When the object is removed, the lid closes automatically.
- This system works without touching the dustbin

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