



SERVO MOTORS

DISTANCE SENSOR

MOTION ALARM

A

B

C

PROJECT 3

Tired of your cat walking all over the kitchen counter? How about the dog getting into the garbage? Need a way to stop your younger sibling from sneaking into your bedroom? Learn how to protect against all of these annoyances as you build a multipurpose motion alarm. The alarm detects distance and motion using an **ultrasonic distance sensor**, and creates motion using a **servo motor**.

NEW COMPONENTS INTRODUCED IN THIS PROJECT

- SERVO MOTOR
- ULTRASONIC DISTANCE SENSOR

NEW CONCEPTS INTRODUCED IN THIS PROJECT

- PWM DUTY CYCLE
- ARDUINO LIBRARIES
- OBJECTS AND METHODS
- DIGITAL SENSORS
- DATASHEETS
- SERVO MECHANISMS

YOU WILL LEARN

- HOW TO CONTROL A SERVO MOTOR
- HOW TO USE AN ULTRASONIC DISTANCE SENSOR
- HOW TO MOVE OBJECTS USING SERVO MECHANISMS