

# Arduino Problem Solving Competition Questions

## Simple Level (2 Questions)

### 1. Automatic Street Light

Create a system that automatically turns ON a light when it becomes dark and turns OFF during the day.

**Requirements:** LDR, LED, Serial Monitor status.

### 2. Smart Dustbin

Design a smart dustbin that opens its lid automatically when someone approaches.

**Requirements:** Ultrasonic sensor, Servo motor, Buzzer/LED.

## Medium Level (2 Questions)

### 3. Vehicle Parking Counter System

Counts vehicles entering and exiting and shows available space.

**Requirements:** IR sensors, LCD/7-segment, Parking status display.

### 4. Smart Irrigation System

Automatically waters plants based on soil moisture level.

**Requirements:** Soil sensor, Relay pump control, LCD display.

## Hard Level (1 Question)

### 5. Accident Detection & Emergency Alert System

Detect accidents and send emergency alerts automatically.

**Requirements:** Accelerometer/Vibration sensor, GSM module, Buzzer, Optional GPS.