

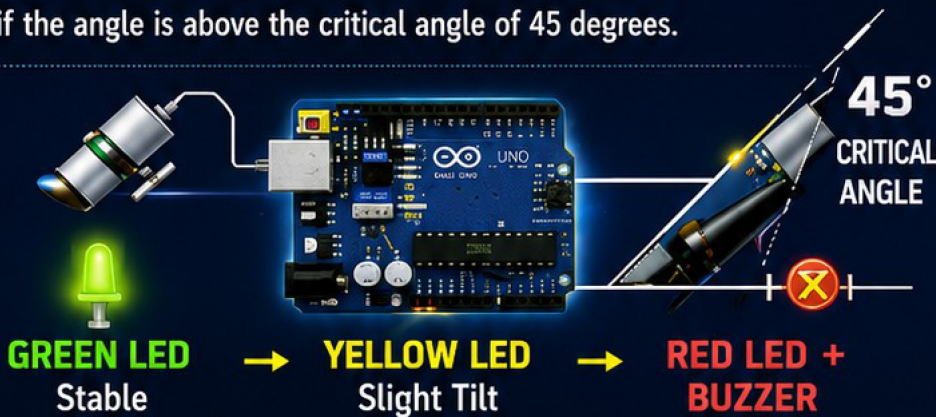
ARDUINO-BASED ROCKET TILT DETECTION SYSTEM

Real-Time Stability Monitoring for Model Rockets

SYSTEM OVERVIEW

OBJECTIVE

It is a circuit that senses tilt of the system and buzzes if the angle is above the critical angle of 45 degrees.



Tilt Sensor Detects if Angle > 45° & Activates Alerts

APPLICATIONS



Launch Pad Monitoring



Rocket Stability Testing

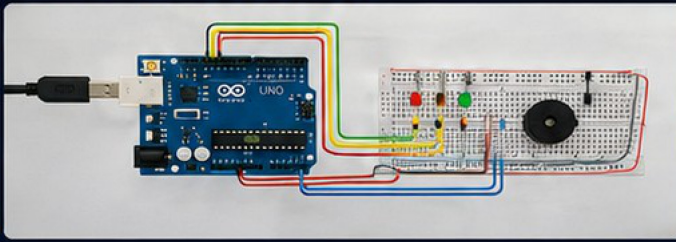


Model Rocket Safety



Aerospace Experiments

HARDWARE CONNECTIONS

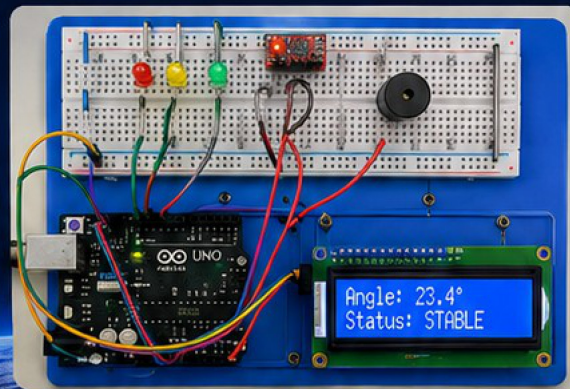


WORKING PRINCIPLE

- ✓ Real-Time Tilt Measurement
- ✓ Threshold-Based Alerts
- ✓ LEDs & Buzzer Activation
- ✓ Immediate Feedback

ALERT STATES

- GREEN LED** – STABLE
- YELLOW LED** – SLIGHT TILT
- RED LED + BUZZER** SEVERE TILT



BENEFITS

- ✓ Launch Safety Enhancement
- ✓ Instant Alignment Feedback
- ✓ Ideal for Aerospace Projects
- ✓ Advanced & Expandable

ENSURING SAFE AND STABLE ROCKET FLIGHTS