AE 242
Aerospace Measurements Laboratory

Laboratory Project

Create a simple system using the sensors as listed and do a meaningful job.

You can only use analog / digital circuits / arduino available in the laboratory.

Project report

  1) Brief title

  2) Circuit diagram

  3) Calibration of sensors

  4) You can use maximum of two sensors

  5) Results and demonstration of the system

We will have open day for display of your system.

Laboratory Project

Important dates:

   1) Initial submission of your project title giving brief outline of the purpose of the system and sensors for the system. Moodle submission link will open on – 14th march from 14:00 Hrs to 17th March, 14:00 Hrs.

Initial screening will be done to remove duplication of the ideas.

   2) Intermediate review of the project – 31st March

   3) Final Demo and evaluation – 13th April

List of sensors

1) DHT11 Humidity & Temperature Sensor Module
2) Flame Sensor Module
3) Analog Ambient light sensor LDR Module
4) Vibration Sensor Module
5) NTC based Temperature Sensor Module
6) Reed Switch Sensor module
7) Reed Switch Module
8) NTC Analog Temperature Sensor Module
9) Tilt Ball Switch Module
10) IR Obstacle Sensor module
11) Laser Module 650nm 5V
12) Mercury Ball Switch Module
13) Capacitive Touch Module based on TTP223

Sensors: robokits.co.in

List of sensors

14) Human/Metal Touch Sensor Module
15) Infrared Receiver TSOP1838 Sensor Module
16) Water Level Sensor Module
17) Rotary Encoder Module
18) Ambient Light Sensor Module
19) Sound Sensor Module
20) IR transmitter
21) Motor Encoder Light Blocking Sensor Module
22) IR 38KHz Obstacle Sensor Module
23) Tact Switch Module
24) Linear Hall Sensor Module

Sensors: robokits.co.in

List of sensors

25) Digital Hall Mini Sensor Module
26) DS18B20 Temperature Sensor Module
27) Analog Hall Mini Sensor Module
28) Dual-axis XY Joystick Module
29) Active Buzzer Module
30) Passive Buzzer Module
31) Line Tracker module based on TCRT5000L
32) Heart Beat sensor

Sensors: robokits.co.in

Intermediate review

- ✓ Demonstrates that it is a feasible.
- ✓ Working of subsystems
- ✓ Some key integration of subsystem
- ✓ Calibration of sensor/s