

SENSORS AND ACTUATOR DEVICES LAB SYLLABUS

1. Hands-on with the Arduino Programming Environment (IDE) and the different Sensors and Actuators available with the Arduino Kit
2. Design a data logger with different types of sensors and learn various sensor calibration techniques
3. Design and implementation of Breath analyzer using temperature sensors
4. Design and implementation of Liquid Level Indicator using optical Sensors
5. Design and implementation of odometer prototype to sense speed of an automobile
6. Design and implementation of a prototype to monitor real-time tire pressure
7. Develop and validate a prototype for sensing PH and humidity parameters using polymer-based sensors
8. Design and demonstrate a water quality monitoring system
9. Demonstrate a simple parking system using ultrasonic sensors

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