Experiment No 2

Aim: To study installation of Arduino IDE Board

Objective: 1. To study installation of Arduino programming

2. To understand Arduino IDE Environment

Outcome: Able to write program for Sensor, Actuator

Theory:

The Arduino software is easy-to-use for beginners, yet flexible enough for advanced users. It runs on mac, Windows and Linux. Teachers and students use it to build low cost scientific instruments, to prove chemistry and physics principles, or to get started with programming and robotics.

Arduino is open source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, and turn it into an output-activating a motor, turning an LED, publishing something online.

Types of Arduino:

Arduino UNO: The Arduino UNO uses Atmega 16U2 microcontroller that helps to increase transfer rate and contain large memory compared to other boards. The Arduino Uno consists SCL and SDA pins also.

LilyPad Arduino: The Lilypad Arduino is considered as another arduino board type. This is designed for integrating with wearable projects and e-textile projects. This board uses the Atmega 328 microcontroller and Arduino bootloader in it.

Airduino Read board: The Arduino Red Board is another type of Arduino Boards that uses mini USB cable for getting programmed and Arduino IDE is used for this purpose.

Arduino Shields: The Arduino shields are considered as pre-build circuit boards that are used to connect other Arduino boards.

Conclusion:
Thus, we learnt about usage of Arduino its importance, its usage and also about various types.