HEART RATE MONITOR

PRESENTED BY:

SANKALP GUPTA (19BCE7596)

SHASHWAT KUMAR (19BCE7600)

RITVIJ JOSHI (19BCN7223)

ADITYA VIKRAM LAHOTI (19BCE7259)

SHUBHAM MALLYA (19BCE7278)

N.S. HARIHARAA (19BCE7331)

PROJECT GUIDE:

B.K.S.P. KUMARRAJU ALLURI

AGENDA

- Introduction
- Abstract
- Module Identification
- Architecture Diagram
- Equipment Identified
- Time Line Chart
- References

INTRODUCTION

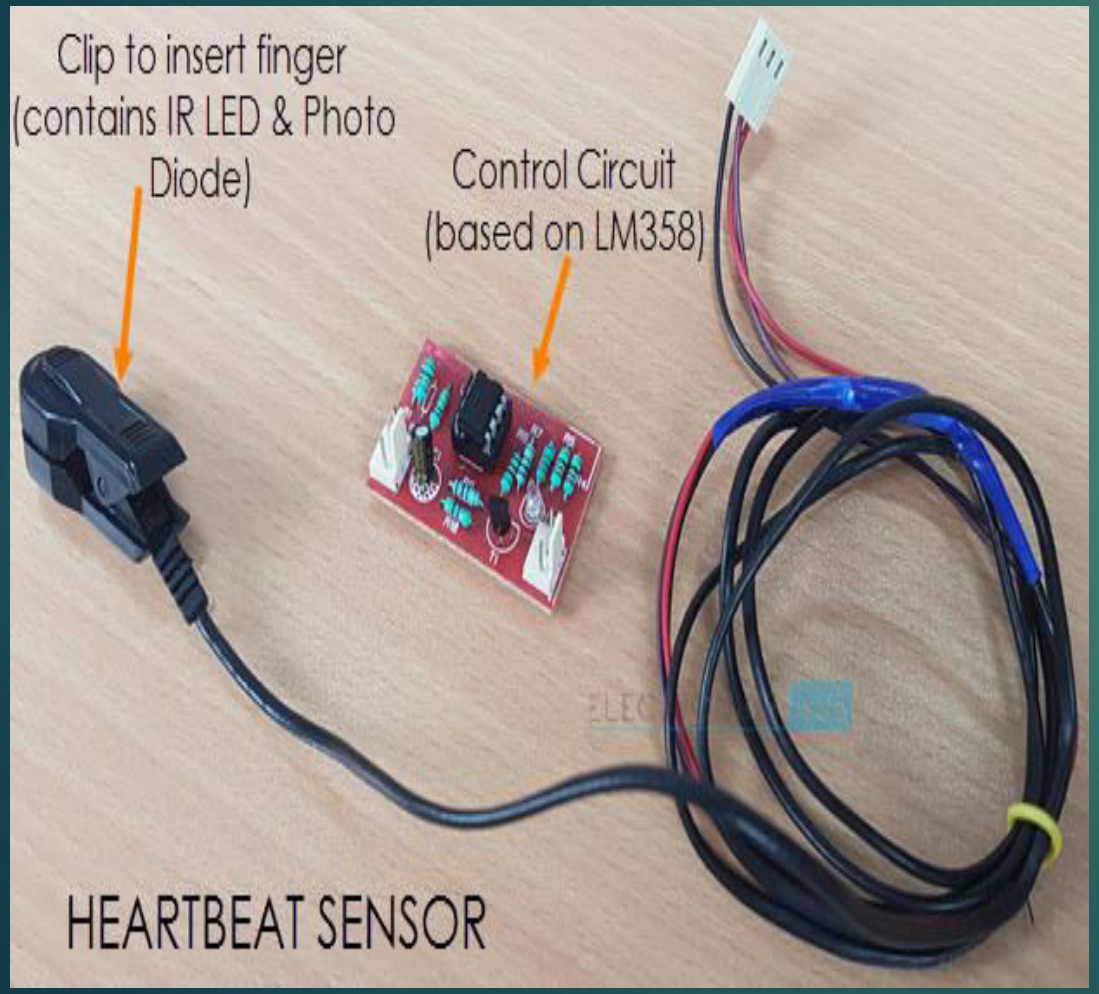
Arduino is an open-source prototyping platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online.

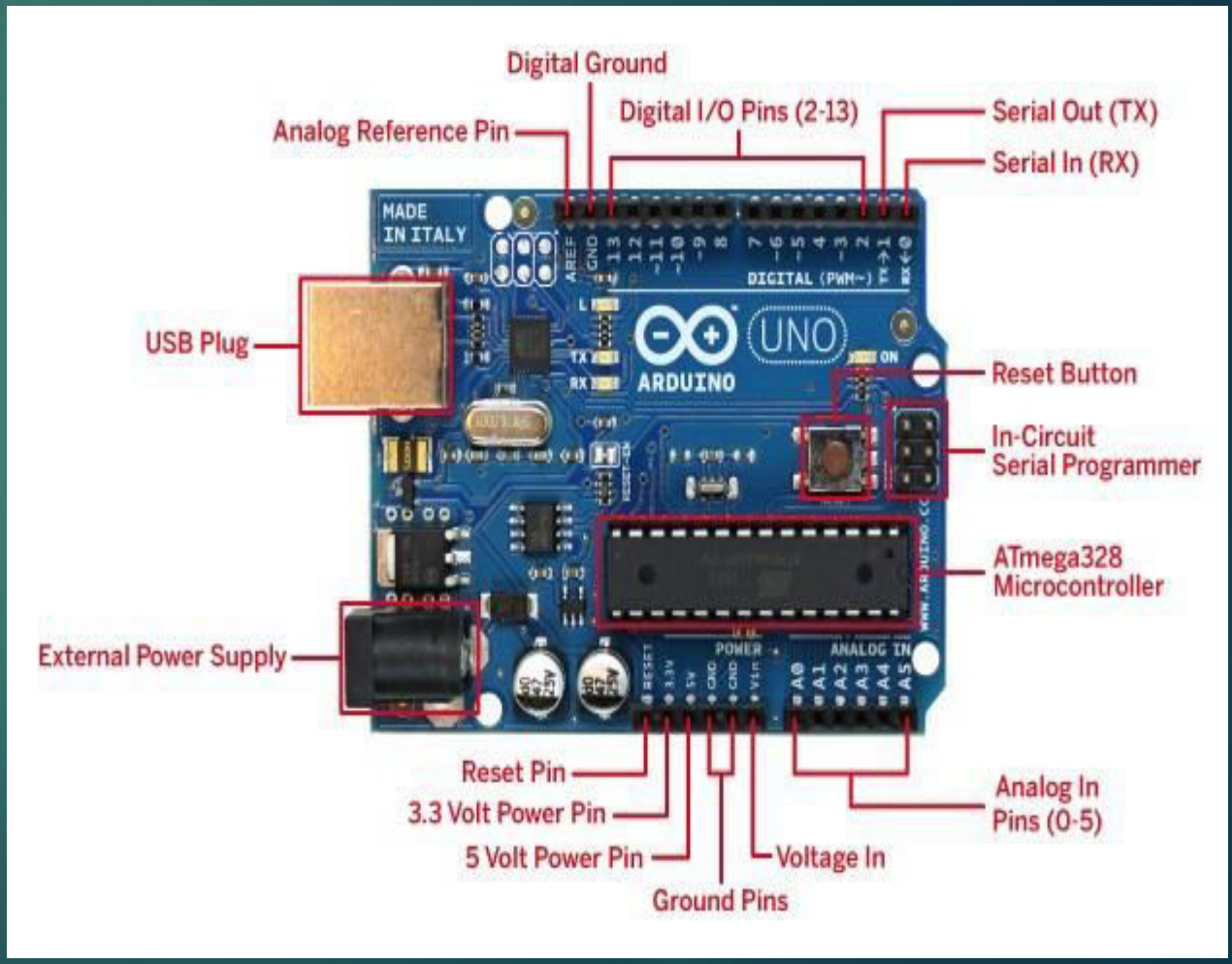
ABSTRACT

- A **heart rate monitor** is a personal monitoring device that allows one to measure and display heart rate in real time or record the same for further studies. It is widely used to gather heart rate data while performing various types of physical exercises.

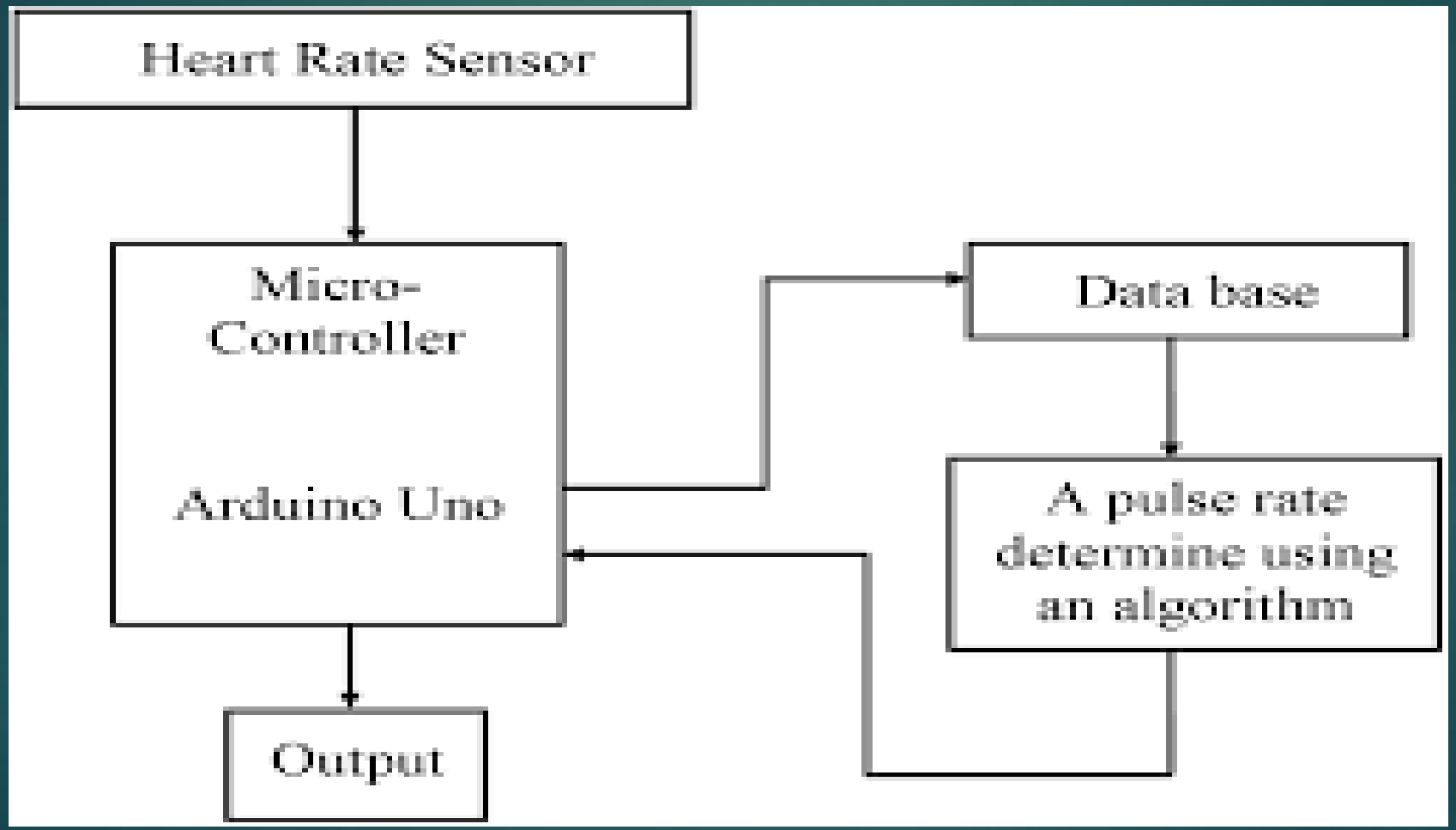
- More than 2 million people are at high risk of having a heart attack. Monitoring heart rate is very important for athletes, patients as it determines the condition of the heart.

MODULE IDENTIFICATION





ARCHITECTURE DIAGRAM



EQUIPMENT IDENTIFIED

S.NO.	NAME OF EQUIPMENT	QUANTITY	PRICE
1.	ARDUINO UNO	1	Rs. 700.00
2.	BREADBOARD	1	Rs. 300.00
3.	JUMPER WIRES	20	Rs. 100.00
4.	16X2 LCD DISPLAY	1	Rs. 200.00
5.	HEART BEAT SENSOR	1	Rs.600.00
6.	POTENTIOMETER(10KΩ)	1	Rs.100.00

COMPONENTS AND ITS USES

ARDUINO UNO:

- Arduino Uno is used in Do-it-Yourself projects prototyping.
- In developing projects based on code-based control
- Development of Automation System
- Designing of basic circuit designs.

BREADBOARD:

- A breadboard is an inexpensive, easy-to-use piece of hardware for wiring electrical circuits.
- A breadboard is used to connect wires and electrical components such as resistors, diodes and capacitors.

HEART BEAT SENSOR:

- It is used to give a digital output of heart beat when a finger is placed on it.

POTENTIOMETER:

- It is a simple knob that provides a variable resistance, which we can read into the Arduino board as an analog value.

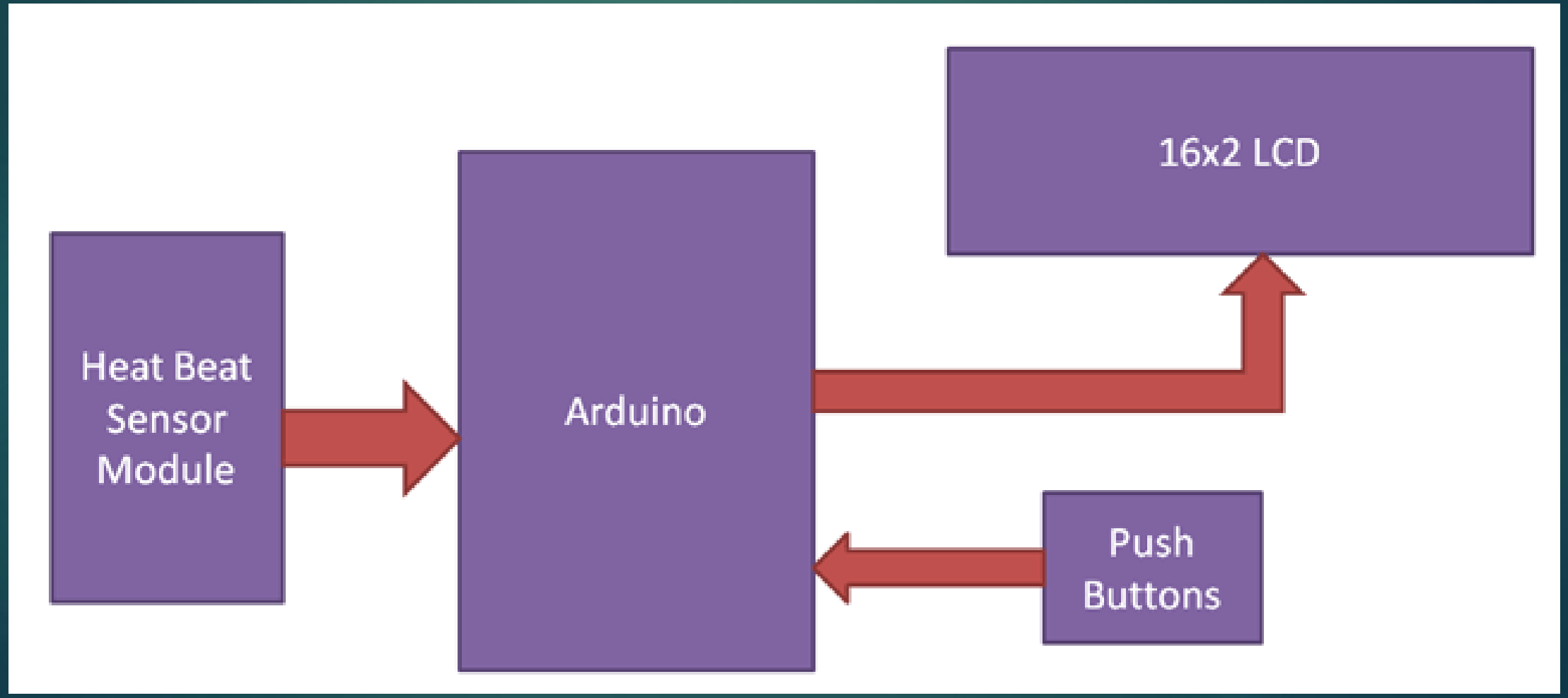
LCD DISPLAY:

- It is used to display the output to user.

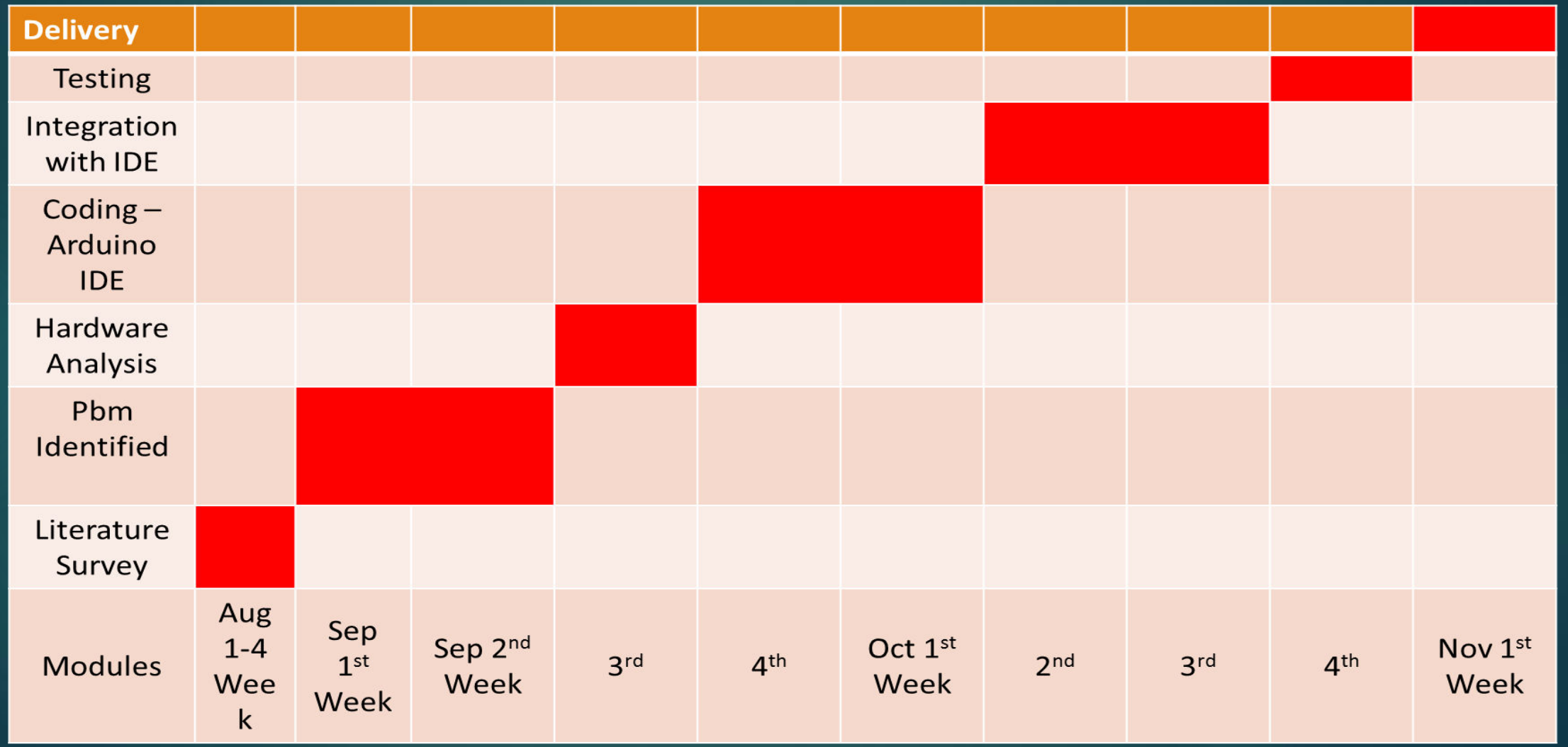
JUMPER WIRES:

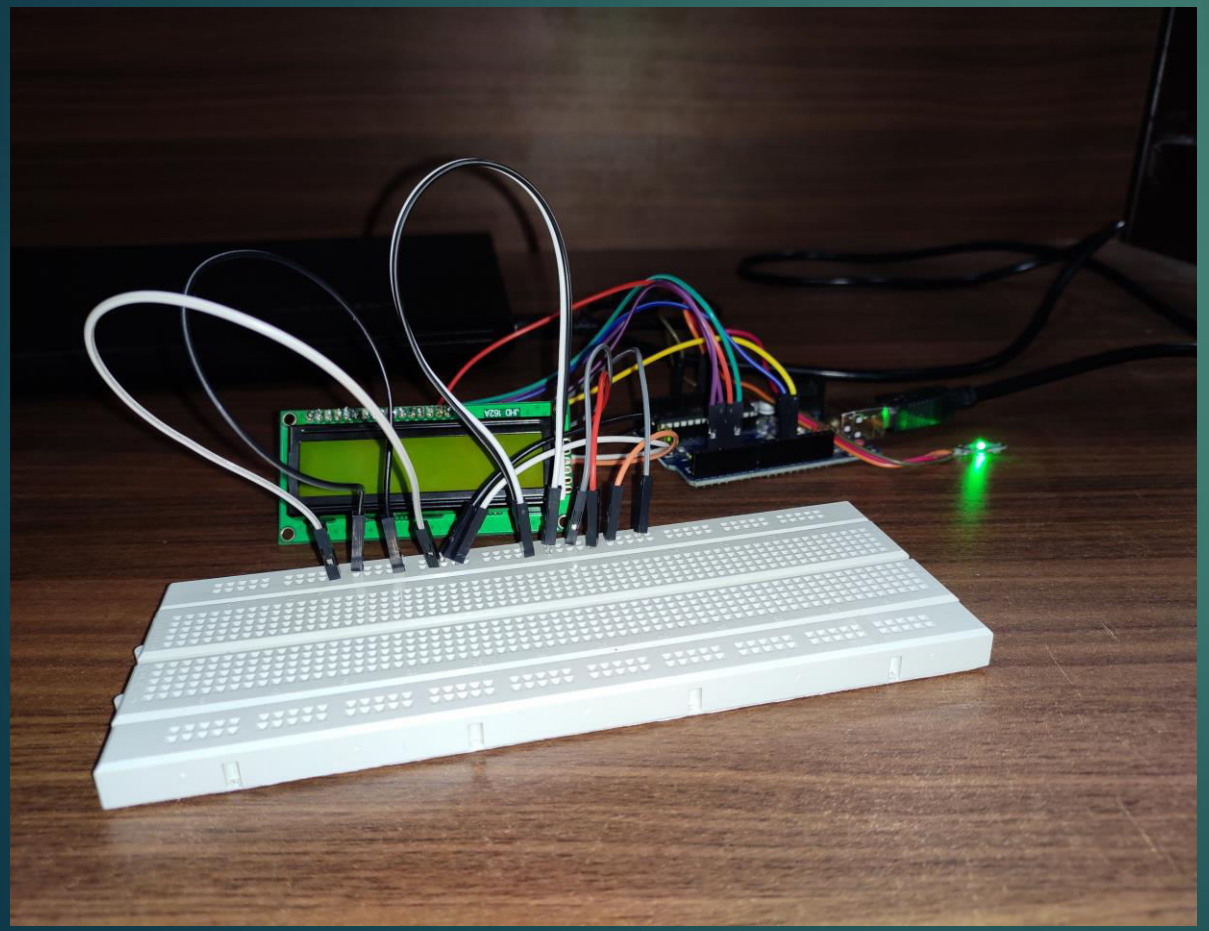
- It is used to connect all the electrical components together.

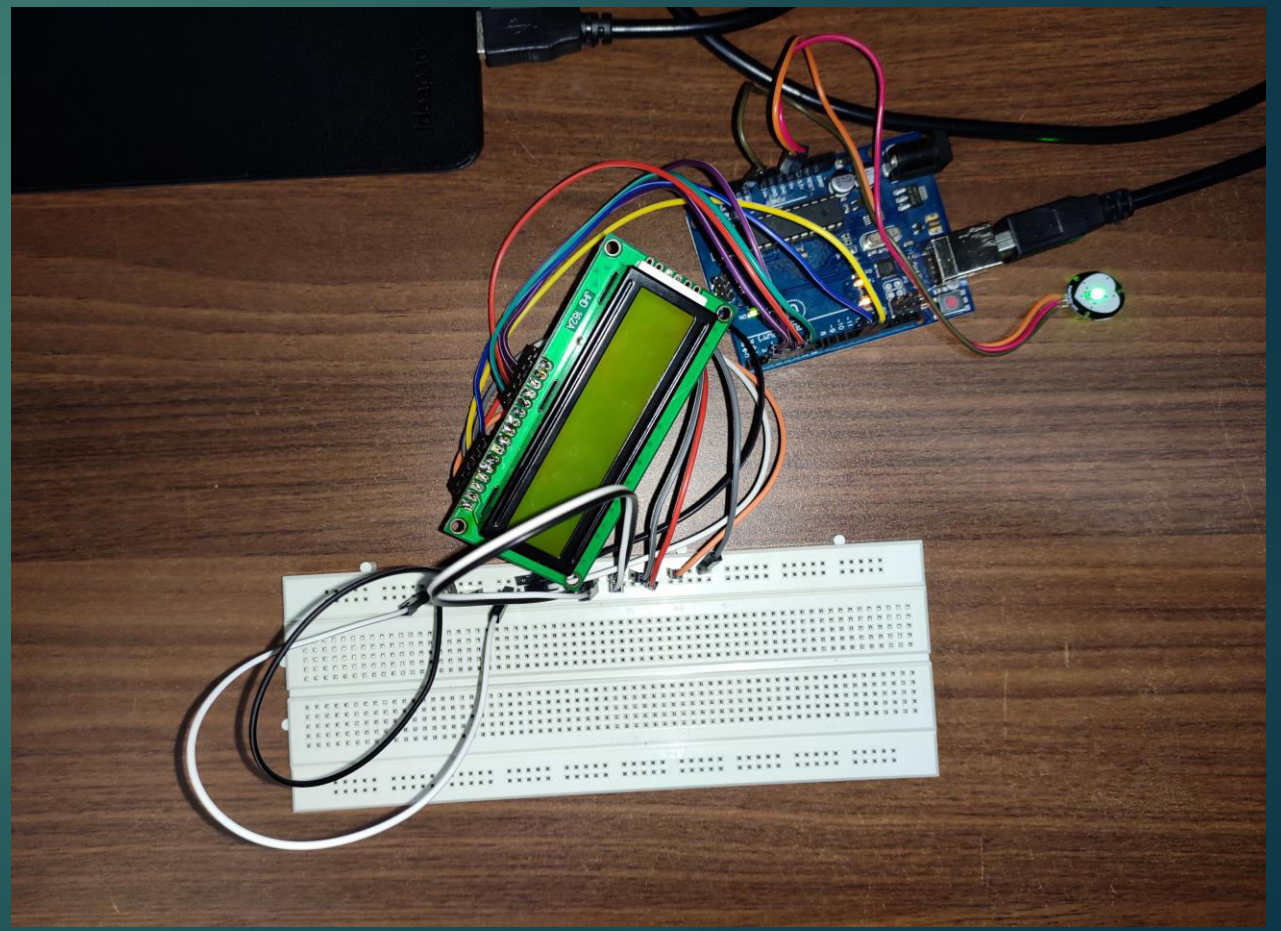
FLOWCHART



TIMELINE CHART







REFRENCES

- 1. https://www.arduino.cc/en/Guide/ArduinoMega2560
- 2. http://playground.arduino.cc
- 3. https://learn.adafruit.com/category/learn-arduino
- 4. https://circuitdigest.com/microcontroller-projects/heartbeat- monitor-project-using-arduino

THANK YOU