Some Notes

On

Day 2: Microcontrollers and Programming

By

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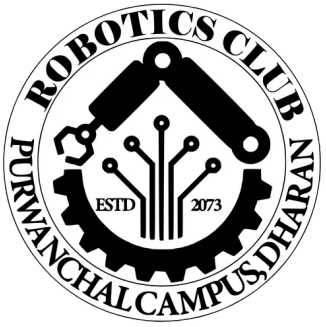
To

Robotics Club



Tribhuwan University

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Robotics Club

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Dharan, Nepal

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1 What I learnt today

1.1 Different components used

Today, in the session, i got to know about the basics and the uses of many electronic prototyping tools like:

- Arduino
- Bare board
- IR sensor
- Colour Sensor
- DC motor

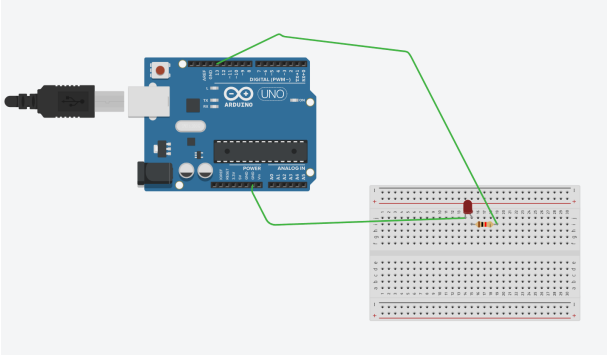

Figure 1: Circuit Setup

Arduino consists of:

- USB port
- PWM pins
- Digital I/O Pins
- Analog Input Pins
- DC motor

1.2 Basic Arduino IDE Programming

The session are very interesting and interactive as we learnt about simple arduino programming. Today, we used Arduino, bare board, led and resistor in tinkercad and make a basic circuit.
Code Explanation(what i understood):

- int ledPin = 13; — declares an integer variable ledPin and sets it to 13, which means the led is connected to digital pin 13
- void setup() — setup() runs once when the Arduino is powered or reset.

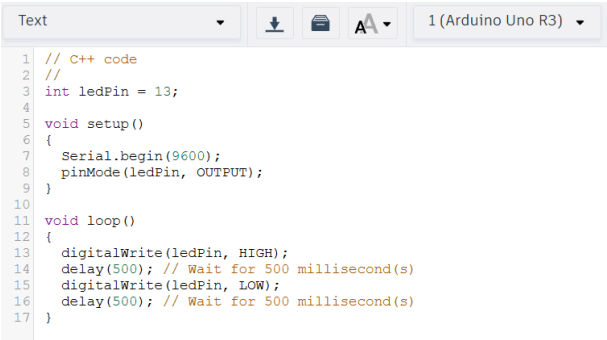

Figure 2: Code

- Serial.begin(9600); —- initializes Arduino and IDE(serial) communication at 9600 baud(symbols per second)
- void loop() —- loop() runs forever (repeats continuously).
- digitalWrite(ledPin, HIGH); — Turns the LED on
- delay(500); —– Waits 500 milliseconds
- digitalWrite(ledPin, LOW); —- Turns the LED off