

Welcome to the seminar

# Introduction

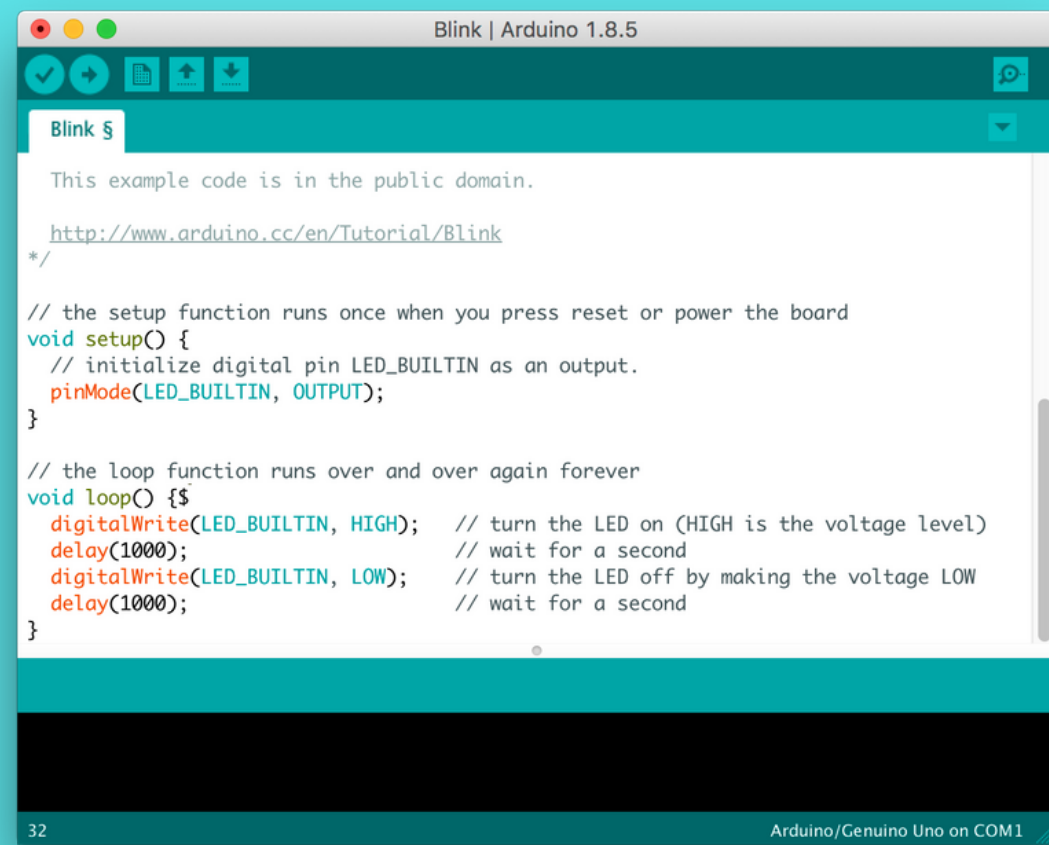


**ARITRA ROY GOSTHIPATY**

ECE 4TH YEAR

# Let's see what it is

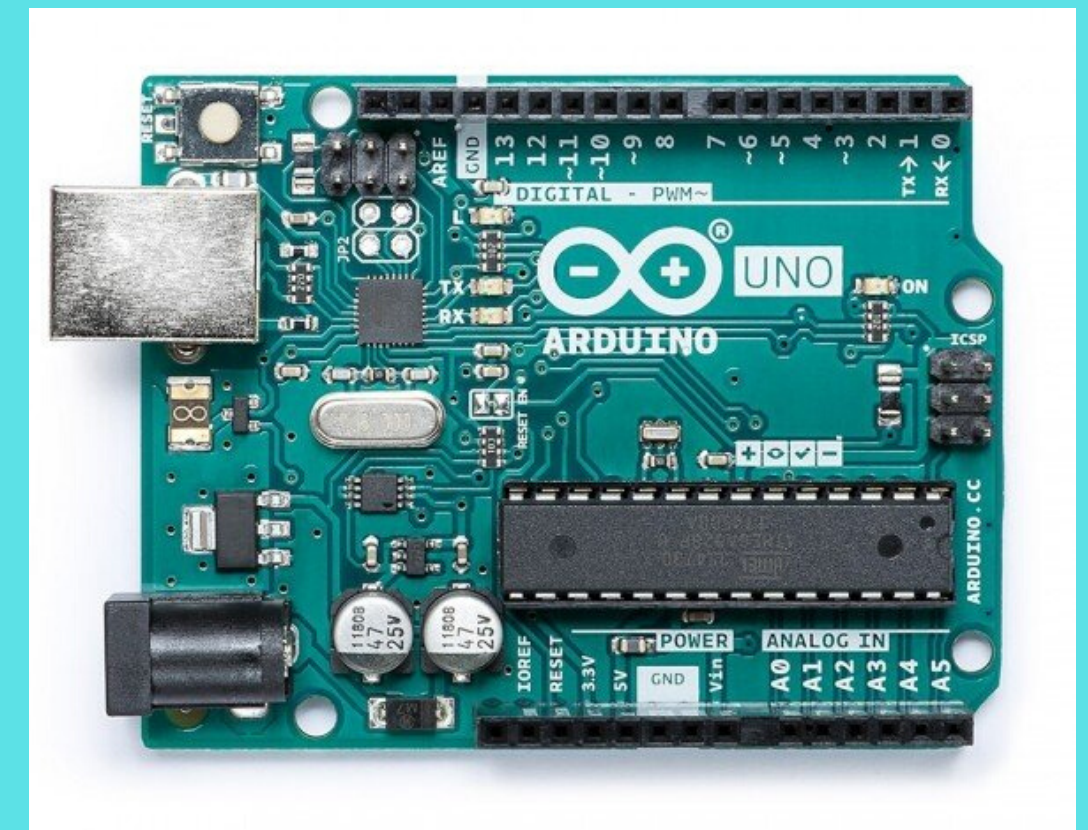
Arduino is an **open-source electronics platform** based on easy-to-use **hardware** and **software**.



The screenshot shows the Arduino IDE interface with the 'Blink' example code loaded. The code is as follows:

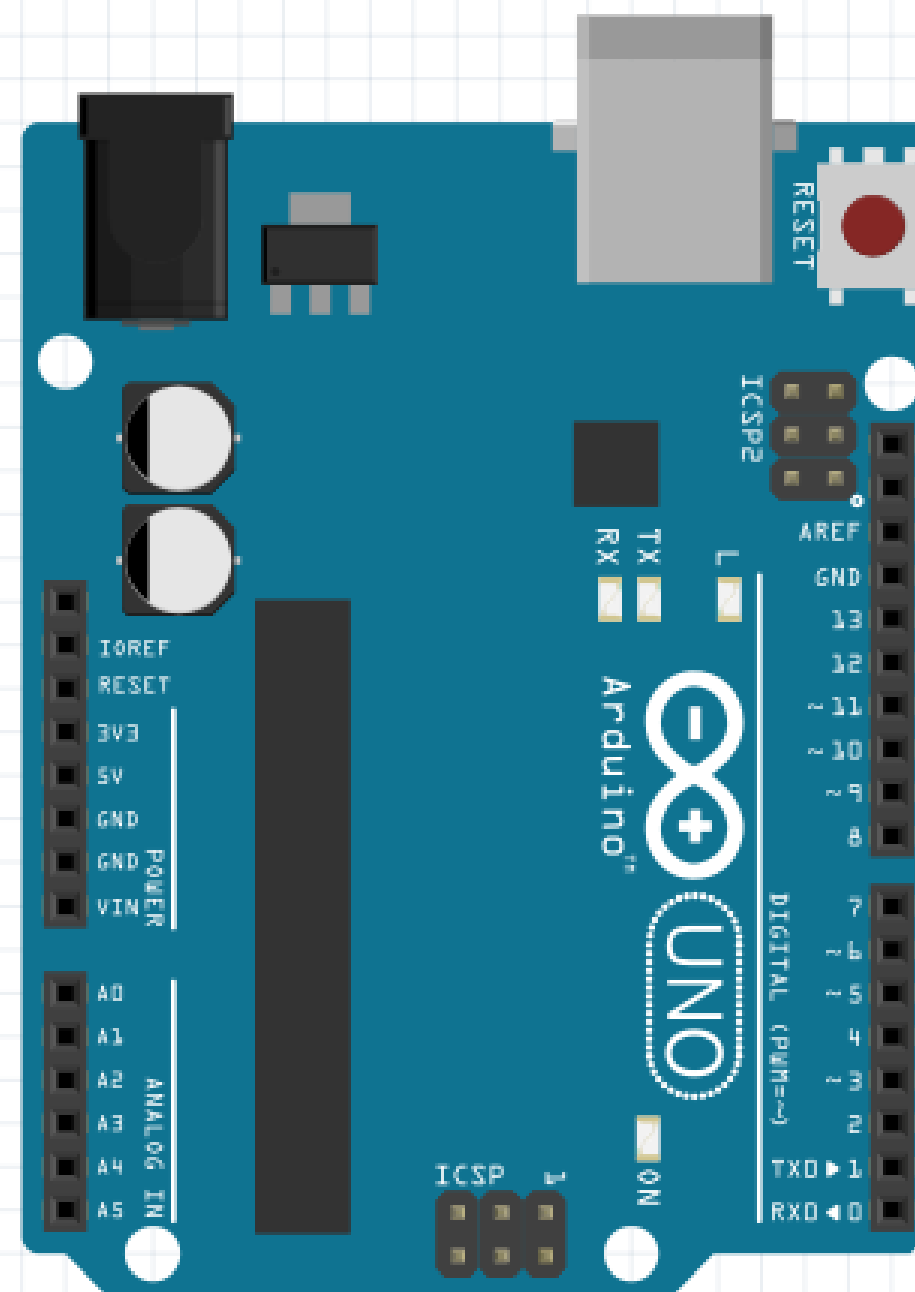
```
Blink $  
  
This example code is in the public domain.  
  
http://www.arduino.cc/en/Tutorial/Blink  
*/  
  
// the setup function runs once when you press reset or power the board  
void setup() {  
  // initialize digital pin LED_BUILTIN as an output.  
  pinMode(LED_BUILTIN, OUTPUT);  
}  
  
// the loop function runs over and over again forever  
void loop() {  
  digitalWrite(LED_BUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)  
  delay(1000); // wait for a second  
  digitalWrite(LED_BUILTIN, LOW); // turn the LED off by making the voltage LOW  
  delay(1000); // wait for a second  
}
```

The status bar at the bottom indicates '32' and 'Arduino/Genuino Uno on COM1'.



# Arduino UNO Pin Outs

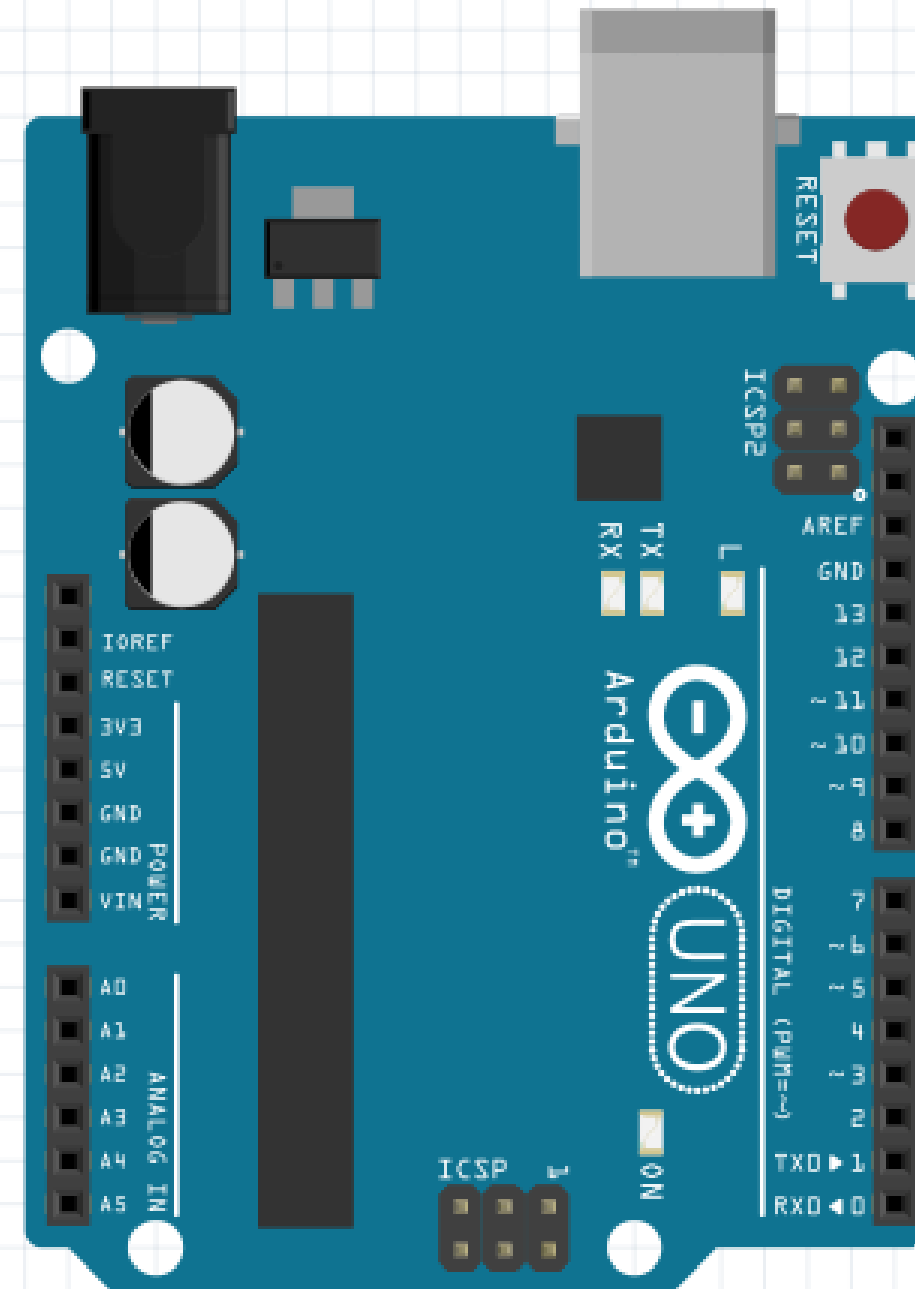
MCU : Atmega 328  
Input voltage : 7V-12V  
Operating voltage : 5V  
CPU Speed : 16MHZ  
Analog In/Out : 6/0  
Digital IO/PWM : 14/6  
EEPROM : 1KB  
SRAM : 2KB  
Flash : 32KB  
UART : 1  
USB : Regular



ARDUINO PIN		MICROCONTROLLER PIN
0	-	PD0(RXD)
1	-	PD1(TXD)
2	-	PD2(INT0)
3	-	PD3(INT1)
4	-	PD4
5	-	PD5
6	-	PD6
7	-	PD7
8	-	PB0
9	-	PB1
10	-	PB2(SS')
11	-	PB3(MOSI)
12	-	PB4(MISO)
13	-	PB5(SCK)
A0	-	PC0
A1	-	PC1
A2	-	PC2
A3	-	PC3
A4	-	PC4(SDA)
A5	-	PC5(SCL)

# A Little about PWM

MCU : Atmega 328  
Input voltage : 7V-12V  
Operating voltage : 5V  
CPU Speed : 16MHZ  
Analog In/Out : 6/0  
Digital IO/PWM : 14/6  
EEPROM : 1KB  
SRAM : 2KB  
Flash : 32KB  
UART : 1  
USB : Regular



ARDUINO PIN		MICROCONTROLLER PIN
0	-	PD0(RXD)
1	-	PD1(TXD)
2	-	PD2(INT0)
3	-	PD3(INT1)
4	-	PD4
5	-	PD5
6	-	PD6
7	-	PD7
8	-	PB0
9	-	PB1
10	-	PB2(SS')
11	-	PB3(MOSI)
12	-	PB4(MISO)
13	-	PB5(SCK)
A0	-	PC0
A1	-	PC1
A2	-	PC2
A3	-	PC3
A4	-	PC4(SDA)
A5	-	PC5(SCL)

# Installation of IDE

<https://www.arduino.cc/en/main/software>

# C

Things to cover:

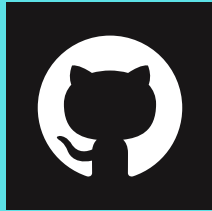
- `variables`
- `functions`
- `loops`
- `main()`

# C for Arduino

Things to cover:

- `setup()`
- `loop()`

# Places you would find me



**/ariG23498**



**/ariG23498**



**/in/ariG23498**