DS20613 - Assignment 1
First Version Submitted on 14 October 2020
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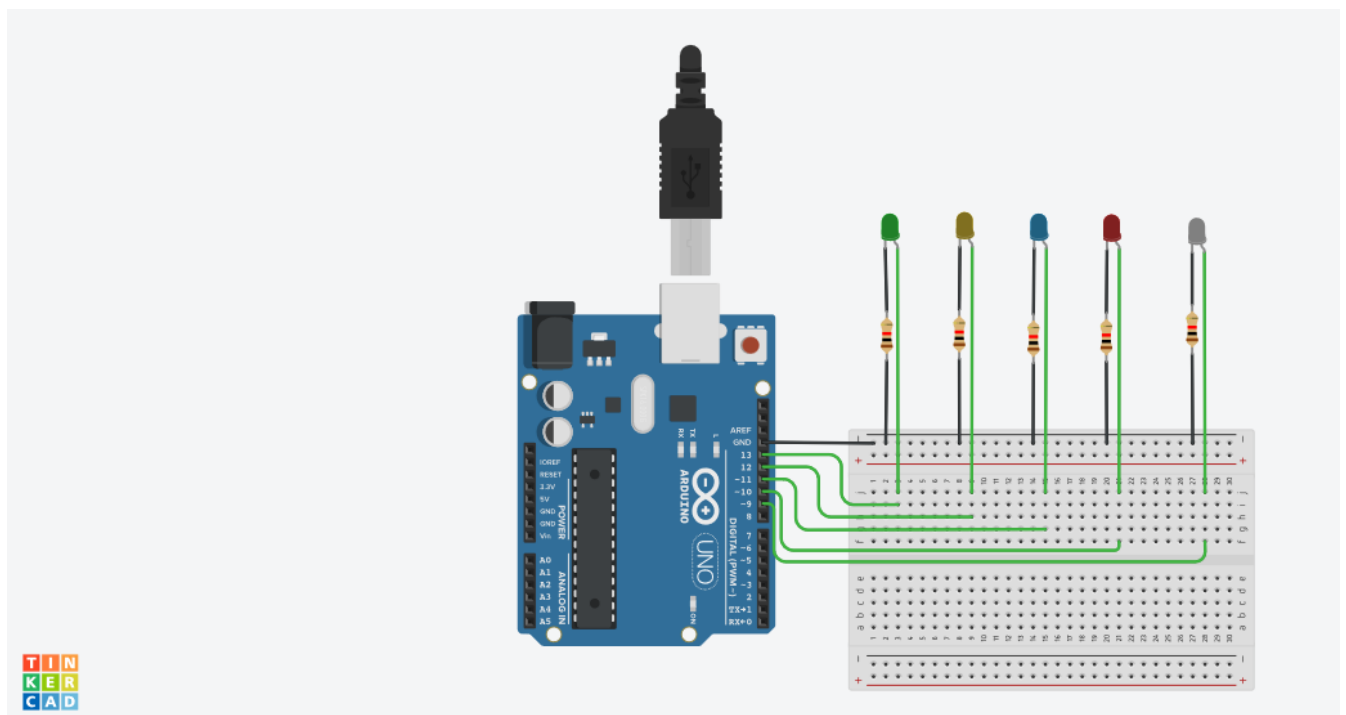
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List of Components

Name	Quantity	Component
U1	1	Arduino Uno R3
D1	1	Green LED
D2	1	Yellow LED
D3	1	Blue LED
D4	1	Red LED
D5	1	White LED
R1		
R2		
R3		
R4		
R5	5	10 kΩ Resistor

Breadboard view:

Code:

```
/*
@author: Theivaprakasham H
@title:  Blinking 5 LEDs at different rate sequentially
*/
```

// Step - 1 - Initialize LED port numbers

```
int n[] = {1,2,4,6,8};  //Number of times each LED should Blink
int led[] = {13,12,11,10,9};      //Choosing the Digital LED pins
```

// Step - 2 - Initialize the each assigned digital pins as output mode by manipulating DDRB register

```
void setup() {
 // B – Binary representation
// B   0 0    1  1   1   1  1  0
// Setting
// Digital pins  13  12  11   10  9
// as INPUT/OUTPUT using DDRB Register

  DDRB = B00111110;
}
```

// Step - 3 - Our Void main loop function which will run for indefinitely

```
void loop() {

 // First FOR loop is for fetching leds pins

 for(int i = 0; i < sizeof(led)/sizeof(led[0]); i++) {

 // Second FOR loop is for blinking led N number of times

  for(int j = 0; j < n[i]; j++) {

   digitalWrite(led[i], HIGH);        // Powers ON led by setting it to HIGH state
   delay(500);                        // Hold the LED light in HIGH state for 0.5 seconds
   digitalWrite(led[i], LOW);         // Powers OFF the led by setting it to LOW state
   delay(500);                         // Hold the LED light in LOW state for 0.5 seconds
 } } }
```