```
/*

Experiment No. :  04

Statement      :  Fade and brighten 5 LEDs alternatively.

Date of Exp.   :  xx/xx/xxxx

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*/
```
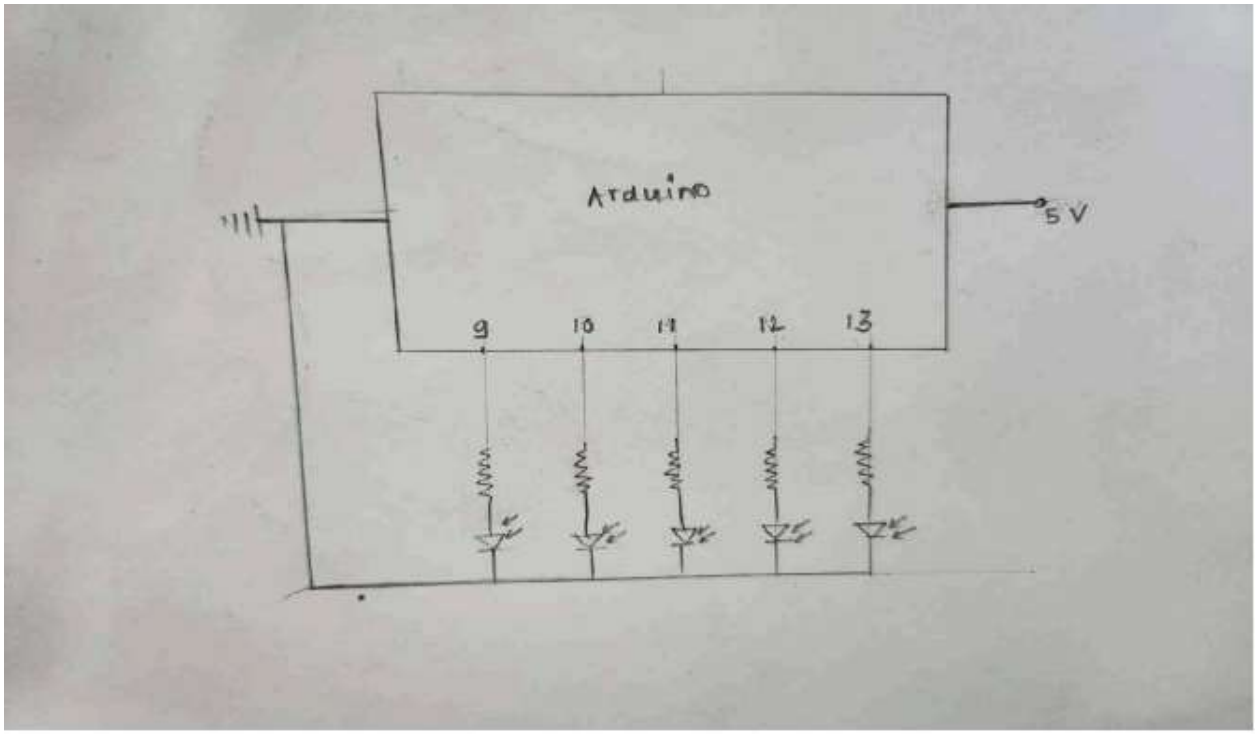

Code:

```
int ledPins[] = {9,10,11,12,13}; // Array to store the pin numbers of LEDs. Currently empty.

int ledCount = 5; // Number of LEDs connected, currently set to 5.

void setup() {

for(int i=0; i < ledCount; i++) // Loop through each LED pin.

{

pinMode(ledPins[i],OUTPUT); // Set the mode of the pin to OUTPUT for each LED.

}

}

void fadeLed(int pin)

{

// Fade in loop: increase brightness gradually from 0 to 255.

for (int brightness = 0; brightness <= 255; brightness +=5)

{
```

```
analogWrite(pin,brightness); // Set the brightness of the LED.
delay(30); // Delay to control the fading speed.
}
// Fade out loop: decrease brightness gradually from 255 to 0.
for (int brightness = 255; brightness >= 0; brightness -=5)
{
analogWrite(pin,brightness); // Set the brightness of the LED.
delay(30); // Delay to control the fading speed.
}
}
void loop()
{
for (int i=0 ; i < ledCount ; i++) // Loop through each LED.
{
fadeLed(ledPins[i]); // Call the fadeLed function to fade each
LED.
}
}
```


Arduino
5 V
9
10
11
12
13