

## **IBM ASSIGNMENT-I**

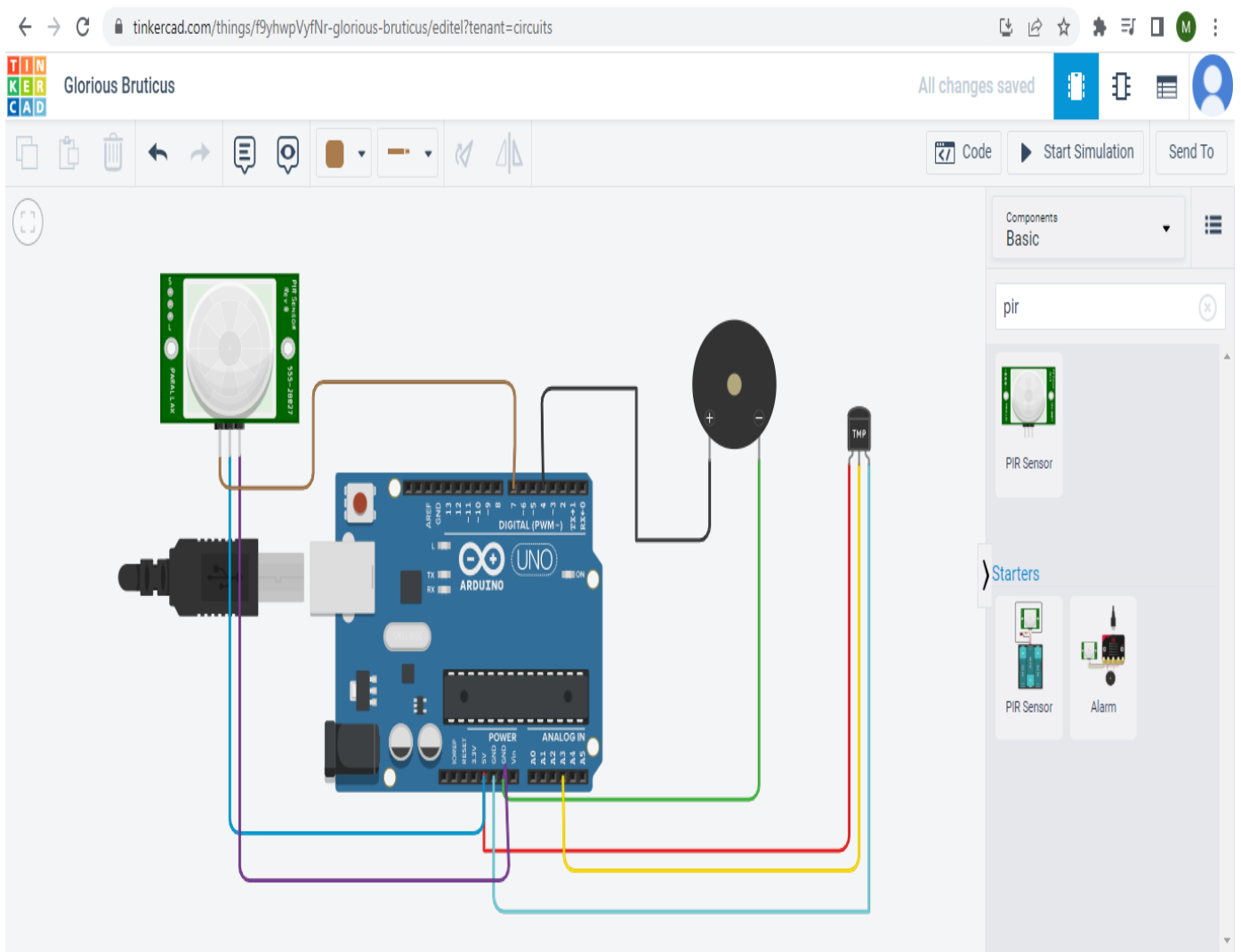
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| Assignment Date     | 16 September 2022 |
| Student Name        | Sowmiya P         |
| Student Roll Number | 922519205110      |
| Maximum Marks       | 4 Marks           |

## Question

To design a circuit using PIR sensor, Temperature sensor and Piezo alarm and to perform the following operations:

1. Alarm should sound in one manner if the temperature is above “60 C”.
2. Alarm should sound with another frequency if motion is detected using PIR sensor.

## Circuit:



## **Code:**

```
void setup()
{
  Serial.begin(9600);
  pinMode(4,OUTPUT);
  pinMode(7,INPUT);
}
void loop()
{
  int a=digitalRead(7);
  double td=analogRead(A3);
  double n=td/1024;
  double volt=n*5;
  double offset=volt-0.5;
  double temperature=offset*100;
  Serial.print("Temperature Detected: ");
  Serial.println(temperature);
  if(a==0){
    Serial.println("No Motion Detected");
  }
  if(a==1){
    Serial.println("Motion Detected");
    tone(4,100,1000);
  }
}
```

```
if(temperature>60){
    tone(4,400,1000);
}
```

**Output:**

