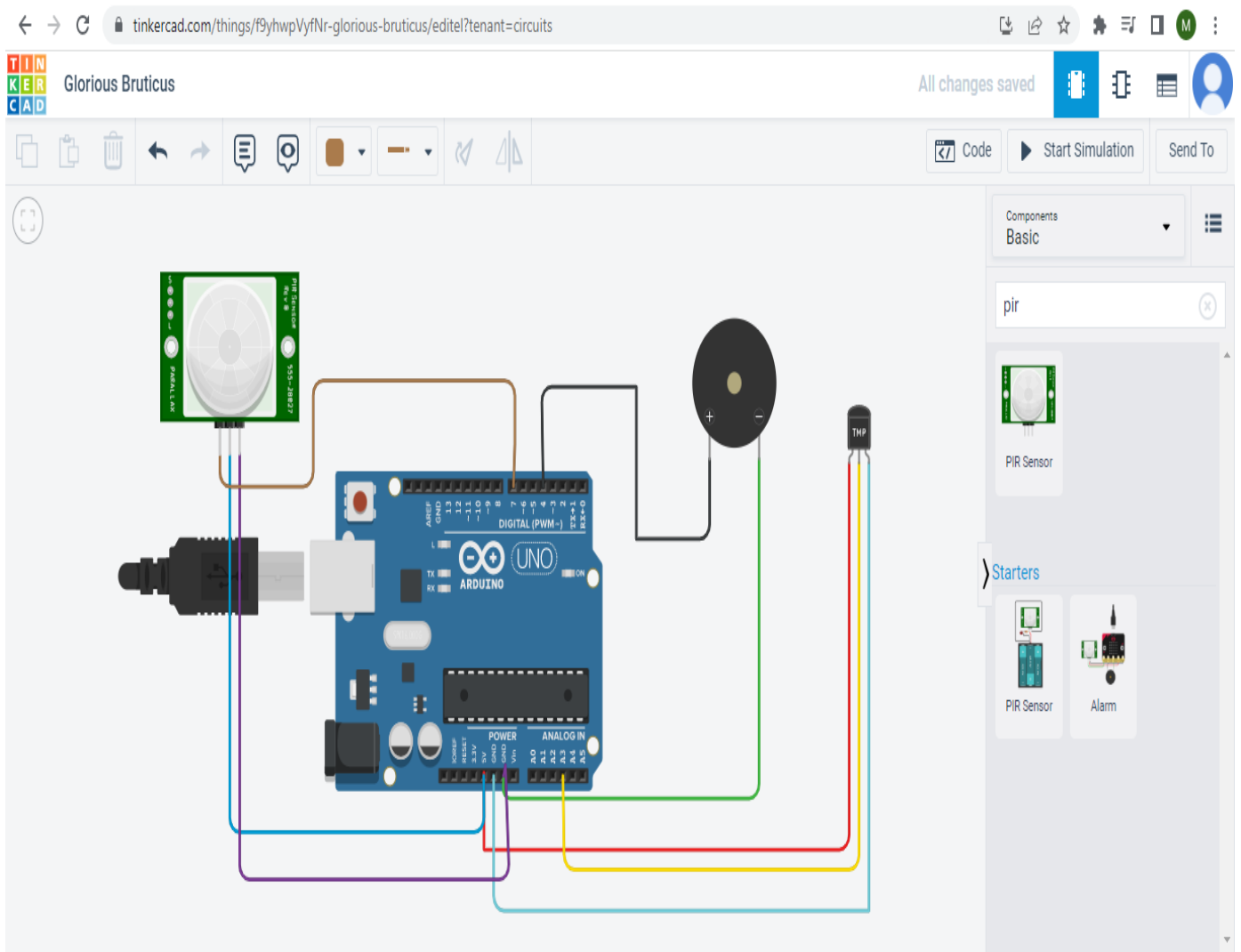


Assignment -1
Smart Solution for Railways

Assignment Date	25 September 2022
Student Name	M.Arunesh
Student Roll Number	721219106005
Maximum Marks	2 Marks

Circuit:



Code:

```
void setup()
{
  Serial.begin(9600);
```

```
pinMode(4,OUTPUT);
pinMode(7,INPUT);
}
void loop()
{
intmov=digitalRead(7);
double dt=analogRead(A3);
double n=dt/1024;
double volt=n*5;
double offset=volt-0.5;
double temp=offset*100;
Serial.print("Temperature Detected: ");
Serial.println(temp);
if(mov==0){
Serial.println("No Motion Detected");
}
if(mov==1){
Serial.println("Motion Detected");
tone(4,100,1000);
}
if(temp>60){
tone(4,400,1000);
}
}
```

Output:

tinkercad.com/things/f9yhwpyfNl-glorious-bruticus/edit?tenant=circuits

TINKERCAD Glorious Bruticus All changes saved

Code Start Simulation Send To

PIR Sensor
Name 1

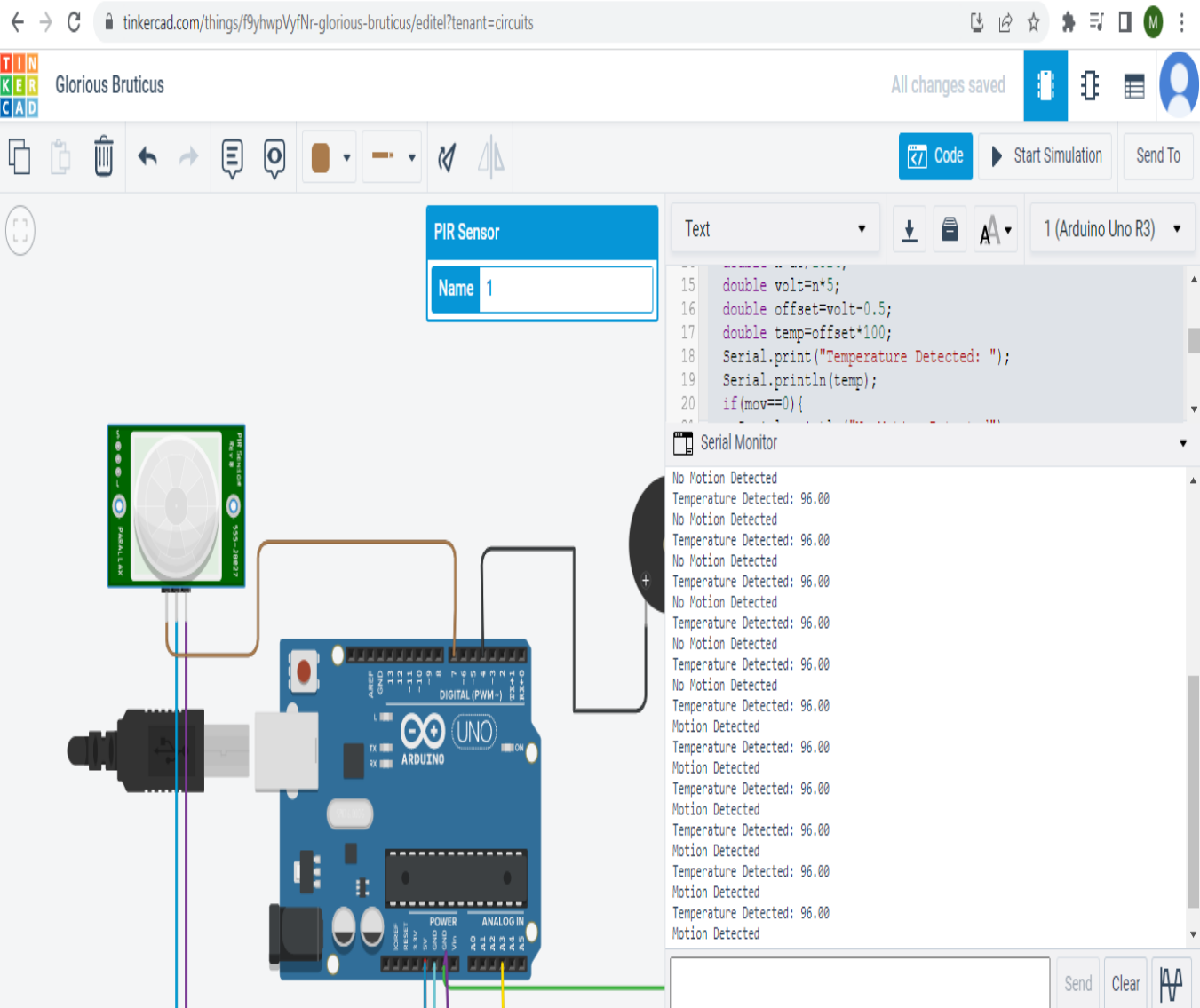
1 (Arduino Uno R3)

```
15 double volt=n*5;
16 double offset=volt-0.5;
17 double temp=offset*100;
18 Serial.print("Temperature Detected: ");
19 Serial.println(temp);
20 if(mov==0){
```

Serial Monitor

No Motion Detected
Temperature Detected: 96.00
No Motion Detected
Temperature Detected: 96.00
No Motion Detected
Temperature Detected: 96.00
No Motion Detected
Temperature Detected: 96.00
No Motion Detected
Temperature Detected: 96.00
Motion Detected
Temperature Detected: 96.00
Motion Detected
Temperature Detected: 96.00
Motion Detected
Temperature Detected: 96.00
Motion Detected
Temperature Detected: 96.00
Motion Detected
Temperature Detected: 96.00
Motion Detected

Send Clear



The screenshot displays the Tinkercad web interface. At the top, the URL is 'tinkercad.com/things/f9yhwpyfNl-glorious-bruticus/edit?tenant=circuits'. The user 'Glorious Bruticus' is logged in. The interface includes a toolbar with various icons for editing and simulation. A PIR sensor component is shown in a separate window with the name '1'. The main workspace shows an Arduino Uno R3 board connected to the PIR sensor. The code editor on the right contains the following code:

```
15 double volt=n*5;
16 double offset=volt-0.5;
17 double temp=offset*100;
18 Serial.print("Temperature Detected: ");
19 Serial.println(temp);
20 if(mov==0){
```

 Below the code editor is the Serial Monitor window, which displays the output of the code. It shows a sequence of messages: 'No Motion Detected', 'Temperature Detected: 96.00', 'No Motion Detected', 'Temperature Detected: 96.00', and so on, alternating between the two messages. At the bottom of the Serial Monitor, there are 'Send' and 'Clear' buttons and a waveform icon.

