

project development phase
sprint 4

Date	14 NOV 2022
Team ID	PNT2022TMID11461
Project Name	IOT Based Smart Crop Protection System For Agriculture

To detect a animal in agriculture by using PIR sensors
code:

```
#define LED 9 // choose the pin for the RELAY
#define BUZZER 13

int ldr=0;
int PIR=4;
int val;

void setup()
{
  Serial.begin(9600);
  pinMode(LED, OUTPUT); // declare lamp as output
  pinMode(PIR,INPUT);
  pinMode(BUZZER,OUTPUT);
}

void loop()
{
  ldr = analogRead(A1);
  val=digitalRead(PIR);

  Serial.print("pir value = ");
  Serial.println(val);
  Serial.print("ldr value = ");
  Serial.println(ldr);
  if((ldr<=200)&& (val==HIGH))
  {
    digitalWrite(LED,HIGH);
    digitalWrite(BUZZER,LOW);
  }
}
```

```

}

else if((ldr>=200)&& (val==HIGH))
{
digitalWrite(BUZZER,HIGH);
digitalWrite(LED,LOW);
}
else {
digitalWrite(LED,LOW);
digitalWrite(BUZZER,LOW);
}

delay(300);
}

```

The screenshot shows the Tinkercad web interface for a project named "Fabulous Jofo-Luulia". The circuit diagram features an Arduino Uno R3 connected to a PIR sensor (labeled "PIR Sensor" with "Name 1"), an LED, and a buzzer. The PIR sensor is connected to the Arduino's digital pins. The code editor on the right contains the following Arduino sketch:

```

1 #define LED 9 // choose the pin for the RELAY
2 #define BUZZER 13
3
4 int ldr=0;
5 int PIR=4;
6 int val;
7 void setup()
8 {
9   Serial.begin(9600);
10  pinMode(LED, OUTPUT); // declare lamp as output
11  pinMode(PIR, INPUT);
12  pinMode(BUZZER, OUTPUT);
13 }
14 void loop()
15 {
16   ldr = analogRead(A1);
17   val=digitalRead(PIR);
18
19   Serial.print("pir value = ");
20   Serial.println(val);
21   Serial.print("ldr value = ");
22   Serial.println(ldr);
23   if((ldr<=200)&& (val==HIGH))
24   {
25     digitalWrite(LED,HIGH);
26     digitalWrite(BUZZER,LOW);
27

```

The simulator time is 00:00:41.607. The interface includes a toolbar with various tools and a "Code" button. The bottom status bar shows the system time as 10:28 AM on 11/18/2022.

The screenshot shows the Tinkercad web interface. At the top, there's a browser tab for 'tinkercad.com/things/4awMLBShnmL-fabulous-jofo-luulia/edit?tenant=circuits'. Below the browser, there's a toolbar with various icons. The main workspace shows a blue Arduino Uno R3 board connected to a green PIR sensor module. The sensor is labeled 'PIR Sensor' and 'Name 1'. A red LED and a yellow buzzer are also connected to the board. On the right side, there's a code editor with the following code:

```

1 #define LED 9 // choose the pin for the RELAY
2 #define BUZZER 13
3
4 int ldr=0;
5 int PIR=4;
6 int val;
7 void setup()
8 {
9   Serial.begin(9600);
10  pinMode(LED, OUTPUT); // declare lamp as output
11  pinMode(PIR, INPUT);
12  pinMode(BUZZER, OUTPUT);
13 }
14 void loop()
15 {
16   ldr = analogRead(A1);
17   val=digitalRead(PIR);
18
19   Serial.print("pir value = ");
20   Serial.println(val);
21   Serial.print("ldr value = ");
22   Serial.println(ldr);
23   if((ldr<=200)&& (val==HIGH))
24   {
25     digitalWrite(LED,HIGH);
26     digitalWrite(BUZZER,LOW);
27   }
28 }

```

At the bottom right, there's a 'Serial Monitor' window showing the output of the code.