Problem Statement :

IoT Based Safety Gadget for Child Safety Monitoring and Notification

Domain :

Internet of Things

Assignment 1:

Smart home with at least two sensors and led, buzzer in TinkerCad

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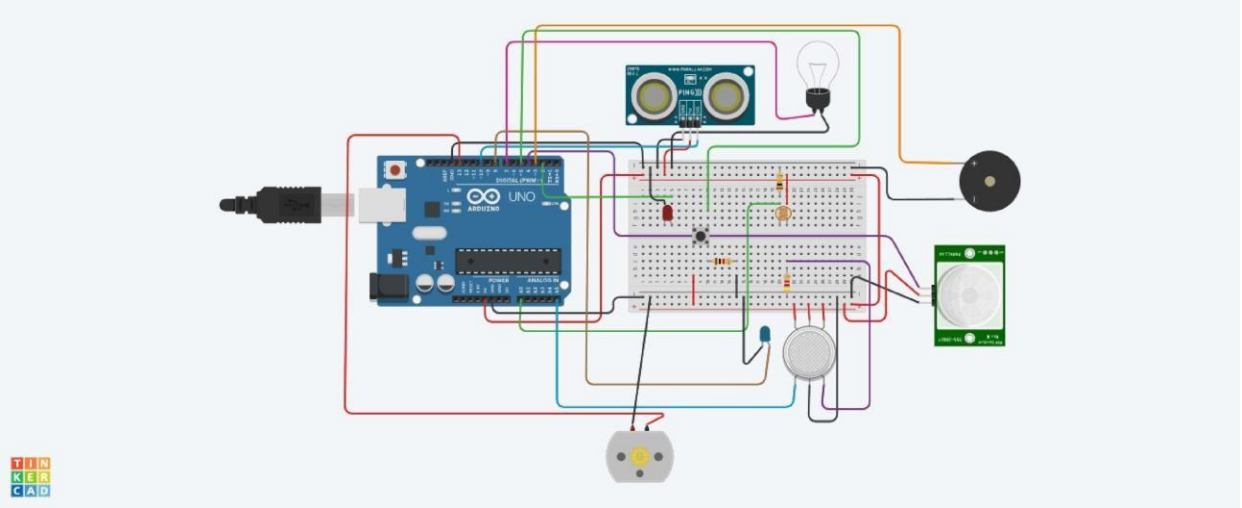
Link: https://www.tinkercad.com/things/39SEf7Fqr4h-terrific-luulia-amur/editel?sharecode=FKQR_ZuHMpvx0HiLrnrJ0Iagb3g2hb1sZ9oTxZPFFAo

Circuit diagram



Arduino Uno Code:

```
const int pingPin = 10;
const int IedUS = 2;
const int light = 7;
const int pir = 4; #define
photosensor A0#define
buzzer 3
intconst PINO SGAS = A5;
int const IedGas =8;
int const button = 5;
int const motor =13;
void setup()

  pinMode(IedUS, OUTPUT);pinMode(light,
  OUTPUT); pinMode(buzzer, OUTPUT);
  pinMode(IedGas, OUTPUT); pinMode(motor,
  OUTPUT);
```

```
  pinMode(pir, INPUT); pinMode(button,
  INPUT); pinMode(photoSensor, INPUT);
  Serial.begin(9600);

void loop()

  long duration, cm;
  int valLight = anaIogRead(photoSensor);int
  vaIPIR= digitaIRead(pir);
  intvaIGAS =anaIogRead(PIN0 SGAS);
  vaIGAS = map(vaIGAS, 300, 750, 0, 100);
  int valBt = digitaIRead(button);
  pinMode(pingPin, OUTPUT);
  digitaIWrite(pingPin, LOW);
  deIayMicroseconds(2);
  digitaIWrite(pingPin, HIGH);
  deIayMicroseconds(5);
  digitaIWrite(pingPin, LOW);
  pinMode(pingPin, INPUT);
  duration = puIseIn(pingPin, HIGH);
  cm = microsecondsToCentimeters(duration);
  if(cm < 336)(
    digitaIWrite(IedUS, HIGH);
  }eIse(
    digitaIWrite(IedUS, LOW);

  if(vaILight < 890)(
    digitaIWrite(light, HIGH);
```

```
  }eIse(
    digitaIWrite(light, LOW);

  if(vaIPIR == 1)(
    digitaIWrite(buzzer, HIGH);
  }eIse(
    digitaIWrite(buzzer,  LOW);

  if(vaIBt == 1)( digitaIWrite(motor,
    HIGH);
  }eIse(
    digitaIWrite(motor, LOW);

  if(vaIGAS > 20)(
    digitaIWrite(IedGas, HIGH);
  }eIse(
    digitaIWrite(IedGas, LOW);

  Serial.print(vaIPIR);
  Serial.println();

long microsecondsToCentimeters(long microseconds) (return
  microseconds / 29 /  2;
```