

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 Tinker Cad

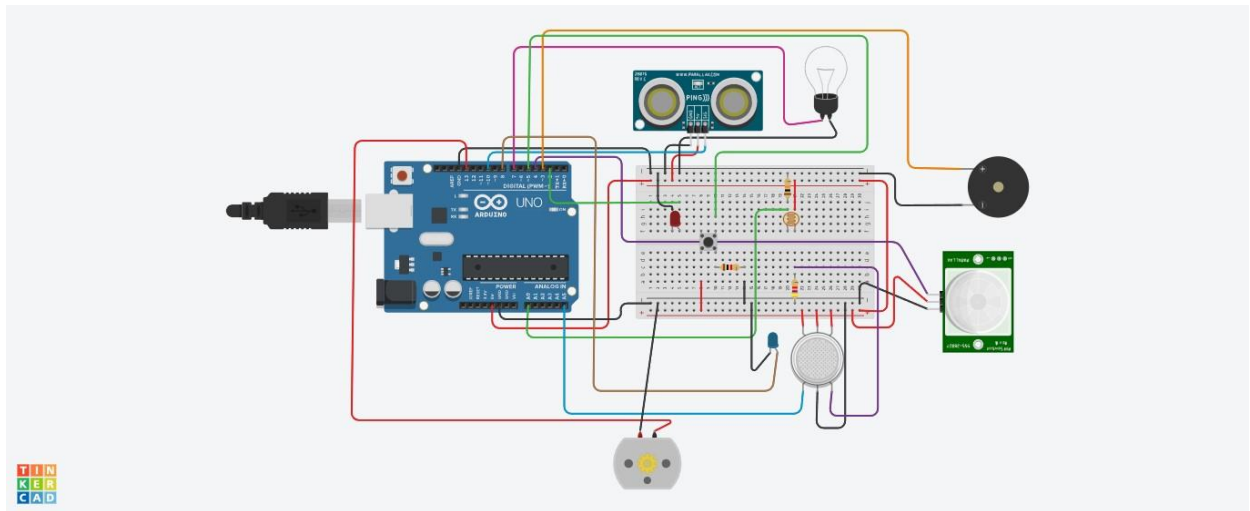
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Link:

<https://www.tinkercad.com/things/9ydpwmYFXjs-super-amberis-robo/editel?tenant=circuits>

Circuit diagram :



Arduino Uno Code :

```
const int pingPin = 10;

const int ledUS = 2;

const int light = 7;

const int pir = 4;

#define photoSensor A0

#define buzzer 3 int const

PINO_SGAS = A5; int

const ledGas = 8; int const

button = 5; int const

motor = 13; void setup()

{

  pinMode(ledUS, OUTPUT);

  pinMode(light, OUTPUT);

  pinMode(buzzer, OUTPUT);

  pinMode(ledGas, OUTPUT);
```

```

pinMode(motor, OUTPUT);
pinMode(pir, INPUT);
pinMode(button, INPUT);
pinMode(photoSensor, INPUT);
Serial.begin(9600);
}
void loop()
{
    long duration, cm; int valLight =
    analogRead(photoSensor); int valPIR=
    digitalRead(pir);
    int valGAS = analogRead(PINO_SGAS);
    valGAS = map(valGAS, 300, 750, 0, 100);
    int valBt = digitalRead(button);
    pinMode(pingPin, OUTPUT);
    digitalWrite(pingPin, LOW);
    delayMicroseconds(2); digitalWrite(pingPin,
    HIGH); delayMicroseconds(5);
    digitalWrite(pingPin, LOW);
    pinMode(pingPin, INPUT); duration =
    pulseIn(pingPin, HIGH); cm =
    microsecondsToCentimeters(duration);
    if(cm < 336){ digitalWrite(ledUS, HIGH);
    }else{ digitalWrite(ledUS,
    LOW);
    }
    if(valLight < 890){
        digitalWrite(light, HIGH); }else{
        digitalWrite(light, LOW);
    }
}

```

```
}  
if(valPIR == 1){  
    digitalWrite(buzzer, HIGH);  
}else{ digitalWrite(buzzer,  
    LOW);  
}  
if(valBt == 1){  
    digitalWrite(motor, HIGH);  
}else{ digitalWrite(motor,  
    LOW);  
}  
if(valGAS > 20){  
    digitalWrite(ledGas, HIGH);  
}else{ digitalWrite(ledGas,  
    LOW);  
}  
Serial.print(valPIR);  
Serial.println();  
}  
long microsecondsToCentimeters(long microseconds) {  
    return microseconds / 29 / 2;  
}
```