**Code**

**Metal Object Detection By NPN Inductive proximity sensors**

**#include<Servo.h>**

**Servo myServo1;**

**Servo myServo2;**

**int servoPin1=9;**

**int servoPin2=10;**

**float metalDetected;**

**int reading;**

**int metalDetectionPin = 1;**

**void setup(){**

**Serial.begin(9600);**

**myServo1.attach(servoPin1);**

**myServo2.attach(servoPin2);**

**myServo1.write(90);**

**myServo2.write(90);**

**}**

**void loop(){**

**reading = analogRead(metalDetectionPin);**

**metalDetected = (float) reading\*100/1024.0;**

**Serial.print("Initializing Proximity Sensor");**

**delay(500);**

**Serial.print("Please wait...");**

**delay(1000);**

**Serial.print("Metal is Proximited = ");**

**Serial.print(metalDetected);**

**Serial.println("%");**

**if (reading > 250){**

**Serial.println("Metal is Detected");**

**myServo1.write(15);**

**myServo2.write(15);**

**delay(5000);**

**}**

**else {**

**myServo1.write(90);**

**myServo2.write(90);**

**}**

**}**