# CODE

```
#include <Servo.h
Servo myservo int pos = 0;
boolean fire = false;
/-------defining Inputs ----- /
#define Left_S 9 // left senso
 #define Right_S 10 // right senso
#define Forward_S 8 //forward sensor
/-------defining Outputs ----- /
#define LM1 2 // left motor
#define LM2 3 // left motor
#define RM1 4 // right motor
#define RM2 5 // right motor
#define pump 6
void setup()
{
pinMode(Left_S, INPUT);

pinMode(Right_S, INPUT);

pinMode(Forward_S, INPUT);

pinMode(LM1, OUTPUT);

pinMode(LM2, OUTPUT);

pinMode(RM1, OUTPUT);

pinMode(RM2, OUTPUT);

pinMode(pump, OUTPUT);

myservo.attach(11);
myservo.write(90);
}
void put_off_fire()
{
delay (500);
digitalWrite(LM1, HIGH);
digitalWrite(LM2, HIGH);
digitalWrite(RM1, HIGH);
digitalWrite(RM2, HIGH);
digitalWrite(pump, HIGH);
delay(500);
```

```
for (pos = 50; pos <= 130; pos += 1)
{

myservo.write(pos);

delay(10);

}
for (pos = 130; pos >= 50; pos -= 1)
{
myservo.write(pos);
delay(10);
}
digitalWrite(pump,LOW);
myservo.write(90);
fire=false;
}
void loop()
{
myservo.write(90); //Sweep_Servo();
if (digitalRead(Left_S) ==1 && digitalRead(Right_S)==1 &&
digitalRead(Forward_S) ==1) //If Fire not detected all sensors are zero
{
//Do not move the robot

digitalWrite(LM1, HIGH);

digitalWrite(LM2, HIGH);
digitalWrite(RM1, HIGH);
digitalWrite(RM2, HIGH);
}
else if (digitalRead(Forward_S) ==0) //If Fire is straight ahead
{
//Move the robot forward
digitalWrite(LM1, HIGH);
digitalWrite(LM2, LOW);
digitalWrite(RM1, HIGH);
digitalWrite(RM2, LOW);
fire = true;
}
else if (digitalRead(Left_S) ==0) //If Fire is to the left
{
//Move the robot left

digitalWrite(LM1, HIGH);
```

```
digitalWrite(LM2, LOW);
digitalWrite(RM1, HIGH);
digitalWrite(RM2, HIGH);
}
else if (digitalRead(Right_S) ==0) //If Fire is to the right
{
//Move the robot right
digitalWrite(LM1, HIGH);
digitalWrite(LM2, HIGH);
digitalWrite(RM1, HIGH);
digitalWrite(RM2, LOW);
}
delay(300); //Slow down the speed of robot
while (fire == true)
{
put_off_fire();
}
}
```