

Program Code

```
#include <LiquidCrystal.h>

LiquidCrystal lcd(2,3,4,5,6,7);

#define RFD0 8
#define RFD1 9
#define RFD2 10
#define RFD3 11
#define M11 A2
#define M12 A3
#define M22 A4
#define M21 A5
#define ECHOPIN A1
#define TRIGPIN A0
#define obs 13
#define mtl 12

int x1,x2,x3,x4,m,ob,v;

void setup()
{
  lcd.begin(16,2);
  pinMode(RFD0,INPUT);
  pinMode(RFD1,INPUT);
  pinMode(RFD2,INPUT);
  pinMode(RFD3,INPUT);
  pinMode(M11,OUTPUT);
  pinMode(M12,OUTPUT);
  pinMode(M22,OUTPUT);
  pinMode(M21,OUTPUT);
  pinMode(obs,INPUT);
```

```
    pinMode(mtl,INPUT);  
    lcd.setCursor(0,0);  
    digitalWrite(M11,LOW);  
    digitalWrite(M12,LOW);  
    digitalWrite(M22,LOW);  
    digitalWrite(M21,LOW);  
    lcd.print("WELCOME TO RF ROBO");  
    lcd.setCursor(0,1);  
    lcd.print("magnet sensor");  
    delay(500);  
    lcd.clear();  
    digitalWrite(M11,LOW);  
    digitalWrite(M12,LOW);  
    digitalWrite(M22,LOW);  
    digitalWrite(M21,LOW);  
}  
void loop()  
{  
    digitalWrite(TRIGPIN,LOW);  
    delayMicroseconds(2);  
    digitalWrite(TRIGPIN,HIGH);  
    delayMicroseconds(10);  
    digitalWrite(TRIGPIN,LOW);  
    float distance=pulseIn(ECHOPIN,HIGH);  
    distance=distance/58;  
    Serial.print(distance);  
    Serial.println("cm");  
    delay(200);  
}
```

```
lcd.setCursor(0,0);
lcd.print(distance);
m=digitalRead(mtl);
ob=digitalRead(obs);
if(m==LOW)
{
    lcd.setCursor(10,0);
    lcd.print("M:N");
    v=1;
}
else
{
    lcd.setCursor(10,0);
    lcd.print("M:Y");
    v=0;
    digitalWrite(M11,LOW);
    digitalWrite(M12,LOW);
    digitalWrite(M22,LOW);
    digitalWrite(M21,LOW);
}
if(ob==LOW)
{
    lcd.setCursor(0,1);
    lcd.print("OBS:Y");
    digitalWrite(M11,LOW);
    digitalWrite(M12,LOW);
    digitalWrite(M22,LOW);
    digitalWrite(M21,LOW);
}
```

```
    delay(1000);
        digitalWrite(M11,LOW);
digitalWrite(M12,HIGH);
digitalWrite(M22,HIGH);
digitalWrite(M21,LOW);
    delay(1000);
}
else
{
    lcd.setCursor(0,1);
    lcd.print("OBS:N");
}
if(distance<20)
{
    lcd.setCursor(10,1);
    lcd.print("dis < ");
    digitalWrite(M11,LOW);
digitalWrite(M12,LOW);
digitalWrite(M22,LOW);
digitalWrite(M21,LOW);
    delay(1000);
        digitalWrite(M11,LOW);
digitalWrite(M12,HIGH);
digitalWrite(M22,HIGH);
digitalWrite(M21,LOW);
    delay(1000);
}
else
```

```

{
    lcd.setCursor(10,1);
    lcd.print("dis > ");
}
x1=digitalRead(RFD0);
x2=digitalRead(RFD1);
x3=digitalRead(RFD2);
x4=digitalRead(RFD3);
    if(v==1)
    {
        if((x4==HIGH)&&(x3==HIGH)&&(x2==HIGH)&&(x1==LOW))
        {
            lcd.setCursor(6,1);
            lcd.print("MOVING FD...");
            digitalWrite(M11,HIGH);
            digitalWrite(M12,LOW);
            digitalWrite(M22,HIGH);
            digitalWrite(M21,LOW);
        }
        else
        {
            lcd.setCursor(6,1);
            lcd.print("STOP...");
            digitalWrite(M11,LOW);
            digitalWrite(M12,LOW);
            digitalWrite(M22,LOW);
            digitalWrite(M21,LOW);
        }
    }
}

```

}

}