

```
<include <LiquidCrystal.h#
<include <Stepper.h#
<include <EEPROM.h#
*****//

;unsigned long currentMillis = 0

;unsigned long previousMillis = 0

;unsigned long previousMillis2 = 0

;unsigned long previousMillis3 = 0

;unsigned long previousMillis4 = 0


;int ss = 0


;int Step = 0


;int Sec = 0

;int LCDPage = 0


;boolean LEDD = LOW


Keypad//

;int LCDRstBtn = 8

;int LCDOKBtn = 9

;int LCDMenuBtn = 10

;int LCDIncBtn = 11

;int LCDDecBtn = 12


;int LCDRstBtnValue = 0

;int LCDOKBtnValue = 0
```

```
;int LCDMenuBtnValue = 0
```

```
;int LCDIncBtnValue = 0
```

```
;int LCDDecBtnValue = 0
```

```
;boolean LCDRstBtnFlag = 0
```

```
;boolean LCDOKBtnFlag = 0
```

```
;boolean LCDMenuBtnFlag = 0
```

```
;boolean LCDIncBtnFlag = 0
```

```
;boolean LCDDecBtnFlag = 0
```

```
*****//
```

```
*****//
```

```
LCD//
```

```
;int LCDRS = 0
```

```
;int LCDEn = 1
```

```
;int LCDData4 = 2
```

```
;int LCDData5 = 3
```

```
;int LCDData6 = 4
```

```
;int LCDData7 = 5
```

```
*/
```

```
LCD R/W pin to ground *
```

```
:K resistor10 *
```

```
ends to +5V and ground *
```

```
/*
```

```
*****//
```

```
*****//
```

```
Switchs Signals//
```

```
;int OnOffSwitch = 16//
```

```
;int AutoManualSwitch = 13
```

```
;int SignalSwitch = 20
```

```
;int OnOffSwitchValue = 0//
```

```
;int AutoManualSwitchValue = 0
```

```
;int AutoManualSwitchFlaq = 0
```

```
;boolean AutoManualSwitchBtnFlag = 0
```

```
;int SignalSwitchValue = 0
```

```
;int SignalSwitchFlag = 0
```

```
;int SignalSwitchOk = 0
```

```
;boolean SignalSwitchBtnFlag = 0
```

```
*****//
```

```
*****//
```

```
output//
```

```
;int Relay = 19
```

```
int LED = 21; //LED notification
```

```
;int FlashingTime = 100
```

```
*****//
```

```
*****//
```

```
Analoge Sensor//
```

```
;int O2Sensor = A0

;int PressureSensor = A1

;float O2SensorValue = 0

;float PressureSensorValue = 0

*****//

*****//

Steppers//

;int AirStepperI0 = 22

;int AirStepperI1 = 24

;int AirStepperI2 = 26

;int AirStepperI3 = 28

; int AirStepperSpeed1 = 30

; int AirStepperSpeed2 = 32

;int AirStepperLimit = 46

;int AirStepperLimitValue = 0

;int AirStepperCurrentLocation = 0


;int GasStepperI0 = 34

;int GasStepperI1 = 36

;int GasStepperI2 = 38

;int GasStepperI3 = 40

;int GasStepperSpeed1 = 42

;int GasStepperSpeed2 = 44

;int GasStepperLimit = 48

;int GasStepperLimitValue = 0

;int GasStepperCurrentLocation = 0
```

```
*****//
```

```
*****//
```

```
Variable for eeprom//
```

```
;int StepperAngle1Address = 10
```

```
;int StepperAngle2Address = 11
```

```
;int StepperAngle3Address = 12
```

```
;int StepperAngle4Address = 13
```

```
;int AutoManualAddress = 14
```

```
;int PressureAtAngle1Address = 15
```

```
;int PressureAtAngle2Address = 20
```

```
;int PressureAtAngle3Address = 25
```

```
;int PressureAtAngle4Address = 30
```

```
;int StepperAngel1 = 0
```

```
;int StepperAngel2 = 0
```

```
;int StepperAngel3 = 0
```

```
;int StepperAngel4 = 0
```

```
;float PressureAtAngel1 = 0.0
```

```
;float PressureAtAngel2 = 0.0
```

```
;float PressureAtAngel3 = 0.0
```

```
;float PressureAtAngel4 = 0.0
```

```
;float StepperAngle = 0
```

```
*****//
```

```
;(LiquidCrystal lcd(LCDRS, LCDEn, LCDData4, LCDData5, LCDData6, LCDData7
```

```
;const int stepsPerRevolution = 200
```

```
Stepper AirStepper(stepsPerRevolution, AirStepperI0, AirStepperI1, AirStepperI2,  
;(AirStepperI3
```

```
Stepper GasStepper(stepsPerRevolution, GasStepperI0, GasStepperI1, GasStepperI2,  
;(GasStepperI3
```

```
} ()void setup
```

```
:put your setup code here, to run once //
```

```
;()Iniat_LCD
```

```
;()Iniat_Steppers
```

```
;()Iniat_OutputAndSwitchSignals
```

```
;()Read_Storg_Data
```

```
{
```

```
} ()void loop
```

```
:put your main code here, to run repeatedly //
```

```
;(GasStepper.step(-1//
```

```
;delay(3000//
```

```
;(GasStepper.setSpeed(ss//
```

```
;++ss//
```

```
(if(ss == 150//
```

```
;ss =0 //
```

```

;()Read_PressureSensor

;()Check_Inputs

;()check_Time

(if(SignalSwitchFlag == 1
}

;Sec = 0

;Step = 1

; analogWrite(AirStepperSpeed1,150); // set the motor_1 speed
; analogWrite(AirStepperSpeed2,150); // set the motor_2 speed
; analogWrite(GasStepperSpeed1,150); // set the motor_1 speed
; analogWrite(GasStepperSpeed2,150); // set the motor_2 speed

(while(SignalSwitchFlag == 1
}

;()Read_PressureSensor

;()Check_Inputs

;()check_Time

;()Starting_

(if(Step >= 5
}

;SignalSwitchFlag = 2

;break

{

{

{

```

```

if(SignalSwitchFlag == 2 && AutoManualSwitchFlaq == 1 &&(GasStepperCurrentLocation ==
StepperAngel1 || GasStepperCurrentLocation == StepperAngel2 ||
GasStepperCurrentLocation == StepperAngel3 || GasStepperCurrentLocation ==
((StepperAngel4

}

;())Read_O2Sensor

{

{

*****//
*****

*****//
*****

*****//
*****

} ()void Iniat_LCD

;(lcd.begin(16, 2

;(pinMode(LCDRstBtn,INPUT

;(pinMode(LCDOKBtn,INPUT

;(pinMode(LCDMenuBtn,INPUT

;(pinMode(LCDIncBtn,INPUT

;(pinMode(LCDDecBtn,INPUT

```



```
{
```

```
*****//  
*****
```

```
})();void Iniat_Steppers
```

```
;(AirStepper.setSpeed(5
```

```
;(GasStepper.setSpeed(5
```

```
;(pinMode(AirStepperSpeed1,OUTPUT
```

```
;(pinMode(AirStepperSpeed2,OUTPUT
```

```
;(pinMode(GasStepperSpeed1,OUTPUT
```

```
;(pinMode(GasStepperSpeed2,OUTPUT
```

```
;(pinMode(AirStepperLimit,INPUT
```

```
;(pinMode(GasStepperLimit,INPUT
```

```
; analogWrite(AirStepperSpeed1,150); // set the motor_1 speed
```

```
; analogWrite(AirStepperSpeed2,150); // set the motor_2 speed
```

```
; analogWrite(GasStepperSpeed1,150); // set the motor_1 speed
```

```
; analogWrite(GasStepperSpeed2,150); // set the motor_2 speed
```

```
{
```

```
*****//  
*****
```

```

})();void Iniat_OutputAndSwitchSignals

;(pinMode(OnOffSwitch,INPUT //

;(pinMode(AutoManualSwitch,INPUT

;(pinMode(SignalSwitch,INPUT

;(pinMode(Relay,OUTPUT

;(pinMode(LED,OUTPUT

{

*****//
*****

})();void _Starting

;(lcd.setCursor(0, 0//

;(" ... lcd.print("Starting//

;(delay(1000//

(if{Step == 1 && SignalSwitchFlag == 1
}

;(lcd.setCursor(0, 0

;(" lcd.print("Seting of Air

;(lcd.setCursor(0, 1

;(" lcd.print("and Gas values

;FlashingTime = 200

;(AirStepperLimitValue = digitalRead(AirStepperLimit

;(GasStepperLimitValue = digitalRead(GasStepperLimit

```

```

(if(AirStepperLimitValue == LOW
}
;(AirStepper.step(-1
{
(if(GasStepperLimitValue == HIGH
}
;(GasStepper.step(-1
{
;(delay(5

;())check_Time//
;if(Sec >= 3) break //

(if(AirStepperLimitValue == HIGH && GasStepperLimitValue == LOW
;Step = 2
{
;(delay(3000 //
(if(Step == 2 && SignalSwitchFlag == 1
}
;FlashingTime = 400
;())lcd.clear
;(lcd.setCursor(0, 0
;(" ...lcd.print("Go Max angle
;AirStepperCurrentLocation = -5
;GasStepperCurrentLocation = 0
;(GasStepper.step(StepperAngel4
;(AirStepper.step(StepperAngel4-AirStepperCurrentLocation
;AirStepperCurrentLocation = StepperAngel4-AirStepperCurrentLocation

```

```

;GasStepperCurrentLocation = StepperAngel4

;StepperAngle = StepperAngel4

;Step = 3

{

(if(Step == 3 && Sec >= 28 && SignalSwitchFlag == 1

}

;FlashingTime = 600

;()lcd.clear

;(lcd.setCursor(0, 0

;(" ...lcd.print("Go Min angle

;(GasStepper.step(StepperAngel1-GasStepperCurrentLocation

;(AirStepper.step(StepperAngel1-AirStepperCurrentLocation

;AirStepperCurrentLocation = StepperAngel1

;GasStepperCurrentLocation = StepperAngel1

;StepperAngle = StepperAngel1

;()Check_Inputs//

;LCDPage = 0

;(Show_LCD(LCDPage

;Step = 4

{

(if(Step == 4 && Sec >= 53 && SignalSwitchFlag == 1

}

;Step = 5

;FlashingTime = 1500

{

{

}()void check_Time

```

```

;())currentMillis = millis

} (if (currentMillis - previousMillis >= 1000

;previousMillis = currentMillis

; ++Sec

;if(Sec >= 60) Sec = 0

{

} (if (currentMillis - previousMillis4 >= FlashingTime

;previousMillis4 = currentMillis

(if(LEDD == HIGH

}

;(digitalWrite(LED,LOW

;LEDD = LOW

{

else

}

;(digitalWrite(LED,HIGH

;LEDD = HIGH

{

{

{

*****//
*****

}())void Read_Storg_Data

;(StepperAngel1 = EEPROM.read(StepperAngle1Address

;(StepperAngel2 = EEPROM.read(StepperAngle2Address

```

```

;(StepperAngel3 = EEPROM.read(StepperAngle3Address
;(StepperAngel4 = EEPROM.read(StepperAngle4Address

;(EEPROM.put(PressureAtAngle1Address, 4.5f //
;(EEPROM.put(PressureAtAngle2Address, 4.5f //
;(EEPROM.put(PressureAtAngle3Address, 4.5f //
;(EEPROM.put(PressureAtAngle4Address, 4.5f //

;(EEPROM.get(PressureAtAngle1Address, PressureAtAngel1
;(EEPROM.get(PressureAtAngle2Address, PressureAtAngel2
;(EEPROM.get(PressureAtAngle3Address, PressureAtAngel3
;(EEPROM.get(PressureAtAngle4Address, PressureAtAngel4

;(AutoManualSwitchFlaq = EEPROM.read(AutoManualAddress

{

}

}()void Stored_Data
(switch(LCDPage
{
:case 1
{
;(EEPROM.write(StepperAngle1Address, StepperAngel1
;break
{
:case 2

```

```
}  
  
;(EEPROM.write(StepperAngle2Address, StepperAngel2  
  
;break  
  
{  
  
:case 3  
  
}  
  
;(EEPROM.write(StepperAngle3Address, StepperAngel3  
  
;break  
  
{  
  
:case 4  
  
}  
  
;(EEPROM.write(StepperAngle4Address, StepperAngel4  
  
;break  
  
{  
  
:case 5  
  
}  
  
;(EEPROM.put(PressureAtAngle1Address, PressureAtAngel1  
  
;break  
  
{  
  
:case 6  
  
}  
  
;(EEPROM.put(PressureAtAngle2Address, PressureAtAngel2  
  
;break  
  
{  
  
:case 7  
  
}  
  
;(EEPROM.put(PressureAtAngle3Address, PressureAtAngel3  
  
;break
```

```

{
:case 8
}

;(EEPROM.put(PressureAtAngle4Address, PressureAtAngel4
;break
{

{

{
*****//
*****

}()void Check_Inputs

;(LCDRstBtnValue = digitalRead(LCDRstBtn
;(LCDOKBtnValue = digitalRead(LCDOKBtn
;(LCDMenuBtnValue = digitalRead(LCDMenuBtn
;(LCDIncBtnValue = digitalRead(LCDIncBtn
;(LCDDecBtnValue = digitalRead(LCDDecBtn

;(OnOffSwitchValue = digitalRead(OnOffSwitch//
;(AutoManualSwitchValue = digitalRead(AutoManualSwitch
;(SignalSwitchValue = digitalRead(SignalSwitch

( if(LCDRstBtnValue == LOW && LCDRstBtnFlag == 0

```



```

}

;LCDRstBtnFlag = 1

(switch(LCDPage
}

:case 1

}

;(StepperAngel1 = EEPROM.read(StepperAngle1Address
;break

{

:case 2

}

;(StepperAngel2 = EEPROM.read(StepperAngle2Address
;break

{

:case 3

}

;(StepperAngel3 = EEPROM.read(StepperAngle3Address
;break

{

:case 4

}

;(StepperAngel4 = EEPROM.read(StepperAngle4Address
;break

{

:case 5

}

;(EEPROM.get(PressureAtAngle1Address, PressureAtAngel1

```

```

;break

{

:case 6

}

;(EEPROM.get(PressureAtAngle1Address, PressureAtAngel2

;break

{

:case 7

}

;(EEPROM.get(PressureAtAngle1Address, PressureAtAngel3

;break

{

:case 8

}

;(EEPROM.get(PressureAtAngle1Address, PressureAtAngel4

;break

{

{

;(Show_LCD(LCDPage

{

    (else if(LCDRstBtnValue == HIGH

;LCDRstBtnFlag = 0

    (if(LCDOKBtnValue == LOW && LCDOKBtnFlag == 0 && LCDPage>0

    }

;LCDOKBtnFlag = 1

;())Stored_Data

;(lcd.setCursor(14, 1

```

```

;("lcd.print("OK

{

  (else if(LCDOKBtnValue == HIGH

;LCDOKBtnFlag = 0


  (if(LCDMenuBtnValue == LOW && LCDMenuBtnFlag == 0

  }

;LCDMenuBtnFlag = 1

; ++LCDPage

;if(LCDPage == 9) LCDPage = 0

;(Show_LCD(LCDPage

{

  (else if(LCDMenuBtnValue == HIGH

;LCDMenuBtnFlag = 0


  (if(LCDIncBtnValue == LOW && LCDPage>0 && LCDIncBtnFlag == 0

  }

;LCDIncBtnFlag = 1

;(AirStepper.step(1 //

;StepperAngle = StepperAngle + 1.8 //

  (switch(LCDPage

  }

  :case 1

  }

; ++StepperAngel1

;if(StepperAngel1 >=51) StepperAngel1 = 51

;break

{

```

```
:case 2
}
; ++StepperAngel2
;if(StepperAngel2 >=51) StepperAngel2 = 51
;break
{
:case 3
}
; ++StepperAngel3
;if(StepperAngel3 >=51) StepperAngel3 = 51
;break
{
:case 4
}
; ++StepperAngel4
;if(StepperAngel4 >=51) StepperAngel4 = 51
;break
{
:case 5
}
;PressureAtAngel1 = PressureAtAngel1 + 0.5
;if(PressureAtAngel1 >= 12) PressureAtAngel1 = 12
;break
{
:case 6
}
;PressureAtAngel2 = PressureAtAngel2 + 0.5
;if(PressureAtAngel2 >= 12) PressureAtAngel2 = 12
```

```

;break

{

:case 7

}

;PressureAtAngel3 = PressureAtAngel3 + 0.5

;if(PressureAtAngel3 >= 12) PressureAtAngel3 = 12

;break

{

:case 8

}

;PressureAtAngel4 = PressureAtAngel4 + 0.5

;if(PressureAtAngel4 >= 12) PressureAtAngel4 = 12

;break

{

{

;(Show_LCD(LCDPage

{

(else if(LCDIncBtnValue == HIGH

;LCDIncBtnFlag = 0

(if(LCDDecBtnValue == LOW && LCDPage>0 && LCDDecBtnFlag == 0

}

;LCDDecBtnFlag = 1

;(AirStepper.step(-1 //

;StepperAngle = StepperAngle - 1.8 //

(switch(LCDPage

}

```

```
:case 1
}
;--StepperAngel1
;if(StepperAngel1 <=0) StepperAngel1 = 0
;break
{
:case 2
}
;--StepperAngel2
;if(StepperAngel2 <=0) StepperAngel2 = 0
;break
{
:case 3
}
;--StepperAngel3
;if(StepperAngel3 <=0) StepperAngel3 = 0
;break
{
:case 4
}
;--StepperAngel4
;if(StepperAngel4 <=0) StepperAngel4 = 0
;break
{
:case 5
}
;PressureAtAngel1 = PressureAtAngel1 - 0.5
;if(PressureAtAngel1 <=0) PressureAtAngel1 = 0
```

```

;break

{

:case 6

}

;PressureAtAngel2 = PressureAtAngel2 - 0.5

;if(PressureAtAngel2 <=0) PressureAtAngel2 = 0

;break

{

:case 7

}

;PressureAtAngel3 = PressureAtAngel3 - 0.5

;if(PressureAtAngel3 <=0) PressureAtAngel3 = 0

;break

{

:case 8

}

;PressureAtAngel4 = PressureAtAngel4 - 0.5

;if(PressureAtAngel4 <=0) PressureAtAngel4 = 0

;break

{

{

;(Show_LCD(LCDPage

{

(else if(LCDDecBtnValue == HIGH

;LCDDecBtnFlag = 0

```

```

( if(AutoManualSwitchValue == LOW && AutoManualSwitchBtnFlag == 0
}
;AutoManualSwitchBtnFlag = 1
(if(AutoManualSwitchFlaq == 0
}
;AutoManualSwitchFlaq = 1
;(EEPROM.write(AutoManualAddress, AutoManualSwitchFlaq
{

else
}
;AutoManualSwitchFlaq = 0
;(EEPROM.write(AutoManualAddress, AutoManualSwitchFlaq
{
{
(else if(AutoManualSwitchValue == HIGH
;AutoManualSwitchBtnFlag = 0

(if(SignalSwitchValue == LOW && SignalSwitchFlag == 0 && SignalSwitchBtnFlag == 0
}
;SignalSwitchFlag = 1
;SignalSwitchBtnFlag = 1
{
( else if(SignalSwitchValue == HIGH
}
;SignalSwitchFlag = 0
;SignalSwitchBtnFlag = 0
;Step = 0

```



```
; analogWrite(AirStepperSpeed1,0); // set the motor_1 speed
; analogWrite(AirStepperSpeed2,0); // set the motor_2 speed
; analogWrite(GasStepperSpeed1,0); // set the motor_1 speed
; analogWrite(GasStepperSpeed2,0); // set the motor_2 speed
```

```
{
```

```
{
```

```
*****//
*****
```

```
{void Show_LCD(int Page
```

```
{switch(Page
```

```
:case 0
```

```
}
```

```
;())lcd.clear
```

```
;lcd.setCursor(0, 0
```

```
;lcd.print("O2
```

```
;lcd.print(O2SensorValue
```

```
;lcd.print("% Pr
```

```
;lcd.print(PressureSensorValue
```

```
;lcd.print("B
```

```
;lcd.setCursor(0, 1
```

```
;lcd.print("A&G
```

```
;lcd.print(StepperAngle * 1.8
```

```
; if(AutoManualSwitchFlaq == 0) lcd.print(" Ma
```

```
;" if(AutoManualSwitchFlaq == 1) lcd.print(" Au
```

```
;(lcd.print(Sec
```

```
;break
```

```
{
```

```
:case 1
```

```
}
```

```
;)lcd.clear
```

```
;(lcd.setCursor(0, 0
```

```
;" = lcd.print("Angel1
```

```
;(lcd.print(StepperAngel1*1.8
```

```
;break
```

```
{
```

```
:case 2
```

```
}
```

```
;)lcd.clear
```

```
;(lcd.setCursor(0, 0
```

```
;" = lcd.print("Angel2
```

```
;(lcd.print(StepperAngel2*1.8
```

```
;break
```

```
{
```

```
:case 3
```

```
}
```

```
;)lcd.clear
```

```
;(lcd.setCursor(0, 0
```

```
;" = lcd.print("Angel3
```

```
;(lcd.print(StepperAngel3*1.8
```

```
;break
```

```

{
:case 4
}

;()lcd.clear

;(lcd.setCursor(0, 0

;" = lcd.print("Angel4

;(lcd.print(StepperAngel4*1.8

;break

{
:case 5
}

;()lcd.clear

;(lcd.setCursor(0, 0

;"=lcd.print("Ang1

;(lcd.print(StepperAngel1* 1.8

;(lcd.setCursor(0, 1

;"=lcd.print("--> Pr

;(lcd.print(PressureAtAngel1

;break

{
:case 6
}

;()lcd.clear

;(lcd.setCursor(0, 0

;"=lcd.print("Ang2

;(lcd.print(StepperAngel2* 1.8

;(lcd.setCursor(0, 1

;"=lcd.print("--> Pr

```

```

;lcd.print(PressureAtAngel2
;break
{
:case 7
}
;())lcd.clear
;lcd.setCursor(0, 0
;"=lcd.print("Ang3
;lcd.print(StepperAngel3* 1.8
;lcd.setCursor(0, 1
;"=lcd.print("--> Pr
;lcd.print(PressureAtAngel3
;break
{
:case 8
}
;())lcd.clear
;lcd.setCursor(0, 0
;"=lcd.print("Ang4
;lcd.print(StepperAngel4* 1.8
;lcd.setCursor(0, 1
;"=lcd.print("--> Pr
;lcd.print(PressureAtAngel4
;break
{
{
{

```

```

*****//
*****

}()void Read_PressureSensor

;()currentMillis = millis

} (if (currentMillis - previousMillis2 >= 1000
;previousMillis2 = currentMillis

;(int PressuresensorInt = analogRead(PressureSensor
;(float voltage = PressuresensorInt * (5.0 / 1023.0

;PressureSensorValue = (voltage-1) / 0.15

if(PressureSensorValue < PressureAtAngel4 && SignalSwitchValue == LOW &&
(SignalSwitchFlag == 2
}

(if(GasStepperCurrentLocation <StepperAngel4
}

(if(GasStepperCurrentLocation == AirStepperCurrentLocation
}

;(GasStepper.step(1
;(AirStepper.step(1
; ++AirStepperCurrentLocation
; ++GasStepperCurrentLocation
;StepperAngle = GasStepperCurrentLocation
{
else

```

```

}

;(AirStepper.setSpeed(60

;(AirStepper.step(GasStepperCurrentLocation-AirStepperCurrentLocation

;(AirStepper.setSpeed(5

;AirStepperCurrentLocation = GasStepperCurrentLocation

{

{

{

else if(PressureSensorValue < PressureAtAngel3 && PressureSensorValue >=
(PressureAtAngel4 && SignalSwitchValue == LOW && SignalSwitchFlag == 2

}

(if(GasStepperCurrentLocation == AirStepperCurrentLocation

}

(if(GasStepperCurrentLocation <StepperAngel3

}

;(GasStepper.step(1

;(AirStepper.step(1

; ++AirStepperCurrentLocation

; ++GasStepperCurrentLocation

;StepperAngle = GasStepperCurrentLocation

{

(else if(GasStepperCurrentLocation > StepperAngel3

}

;(GasStepper.step(-1

;(AirStepper.step(-1

; --AirStepperCurrentLocation

; --GasStepperCurrentLocation

```

```

;StepperAngle = GasStepperCurrentLocation

{
{
else
}

;(AirStepper.setSpeed(60

;(AirStepper.step(GasStepperCurrentLocation-AirStepperCurrentLocation

;(AirStepper.setSpeed(5

;AirStepperCurrentLocation = GasStepperCurrentLocation

{
{
else if(PressureSensorValue < PressureAtAngel2 && PressureSensorValue >=
(PressureAtAngel3 && SignalSwitchValue == LOW && SignalSwitchFlag == 2
}

(if(GasStepperCurrentLocation == AirStepperCurrentLocation

}

(if(GasStepperCurrentLocation <StepperAngel2

}

;(GasStepper.step(1

;(AirStepper.step(1

; ++AirStepperCurrentLocation

; ++GasStepperCurrentLocation

;StepperAngle = GasStepperCurrentLocation

{

(else if(GasStepperCurrentLocation > StepperAngel2

}

;(GasStepper.step(-1

;(AirStepper.step(-1

```

```

;--AirStepperCurrentLocation

;--GasStepperCurrentLocation

;StepperAngle = GasStepperCurrentLocation
{
{
else
}

;(AirStepper.setSpeed(60

;(AirStepper.step(GasStepperCurrentLocation-AirStepperCurrentLocation

;(AirStepper.setSpeed(5

;AirStepperCurrentLocation = GasStepperCurrentLocation
{

{

else if(PressureSensorValue < PressureAtAngel1 && PressureSensorValue >=
(PressureAtAngel2 && SignalSwitchValue == LOW && SignalSwitchFlag == 2
}

(if(GasStepperCurrentLocation == AirStepperCurrentLocation
}

(if(GasStepperCurrentLocation > StepperAngel1
}

;(GasStepper.step(-1

;(AirStepper.step(-1

;--AirStepperCurrentLocation

;--GasStepperCurrentLocation

```



```

;StepperAngle = GasStepperCurrentLocation

{
{
else
}

;(AirStepper.setSpeed(60

;(AirStepper.step(GasStepperCurrentLocation-AirStepperCurrentLocation

;(AirStepper.setSpeed(5

;AirStepperCurrentLocation = GasStepperCurrentLocation

{
{
(if(PressureSensorValue < PressureAtAngel1
}

;(digitalWrite(Relay,LOW

{
(else if (PressureSensorValue >= PressureAtAngel1
}

;(digitalWrite(Relay,HIGH

{

;(Show_LCD(LCDPage

{
{

*****//
*****

}()void Read_O2Sensor

```

```
;PressureSensorValue = (voltage-1) / 0.15//
```

```
;()currentMillis = millis
```

```
} (if (currentMillis - previousMillis3 >= 2000
```

```
;previousMillis3 = currentMillis
```

```
;(int O2sensorInt = analogRead(O2Sensor
```

```
;(float O2SensorValue = O2sensorInt * (5.0 / 1023.0
```

```
(if(O2SensorValue <= 0.4
```

```
}
```

```
;(AirStepper.step(1
```

```
;++AirStepperCurrentLocation
```

```
{
```

```
(else if(O2SensorValue >= 0.6
```

```
}
```

```
;(AirStepper.step(-1
```

```
;--AirStepperCurrentLocation
```

```
{
```

```
{
```

```
{
```