IoT Project 1

Dinesh Adhithya

18097

// C++ code

//

#include <LiquidCrystal.h>

#include <string.h>

const int rs=4,e=5,db4=3,db5=2,db6=8,db7=9;

String text;

LiquidCrystal lcd(rs,e,db4,db5,db6,db7);

float dur=0,distance=0;

void setup()

{

pinMode(A0,INPUT);

pinMode(13,OUTPUT);

pinMode(12,INPUT);

Serial.begin(9600);

}

void loop()

{

int pir = 0;

pir=digitalRead(11);

text="absent";

distance=0;

if (pir==1){

text="present";

digitalWrite(13,HIGH);

delay(10);

digitalWrite(13,LOW);

dur=pulseIn(12,HIGH);

distance=0.017\*dur;

}

float temp=0;

temp=analogRead(A0);

temp=temp\*0.4881-49.76;

Serial.print("Temperature:");

Serial.print(temp);

Serial.print(" ");

Serial.print(text);

Serial.print(" Distance ");

Serial.print(distance);

Serial.println("cm");

lcd.begin(8,2);

lcd.setCursor(0,0);

lcd.print(temp);

lcd.setCursor(0,1);

lcd.print(text);

lcd.setCursor(10,1);

lcd.print(distance);

delay(2000);

}