//Library by David Mellis, Limor Fried, and Tom Igoe

#include <LiquidCrystal.h>

LiquidCrystal lcd(4, 5, 10, 11, 12, 13);

#define buz 6

int tmp = 0;

int var = 0; //variant

int kn = 2;

boolean pr = true;

void setup()

{

//pinMode(buz, OUTPUT);

lcd.begin(16, 2);

pinMode(9, OUTPUT);

analogWrite(9, 10);

pinMode(7, OUTPUT);

digitalWrite(7, HIGH);

pinMode(kn, INPUT);

}

void loop()

{

int tmS = analogRead(tmp);

float volt = (tmS/1024.0)\*5.0;

float TMP = (volt - .5)\*100;

float Celsius = TMP;

float Farengeit = ((Celsius \* 9)/5) + 32;

float Kelvin = (Celsius + 273,15);

if(digitalRead(kn) == HIGH) {

if(pr == true){

pr = false;

tone(buz, 800); delay(100); noTone(buz);

if (var == 3) var = -1;

var = var+1;

}

}

else pr = true;

if (var == 0)

{

lcd.clear();

analogWrite(9, 1023);

digitalWrite(7, LOW);

} else{

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Room temperature");

analogWrite(9, 10);

digitalWrite(7, HIGH);

if (var == 1)

{

lcd.setCursor(0, 1);

lcd.print(Celsius);

lcd.write(B11011111); lcd.print("C");

}

if (var == 2)

{

lcd.setCursor(0, 1);

lcd.print(Farengeit);

lcd.write(B11011111); lcd.print("F");

}

if (var == 3)

{

lcd.setCursor(0, 1);

lcd.print(Kelvin);

lcd.write(B11011111); lcd.print("K");

} }

delay(500);

}