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#include <LiquidCrystal.h>

// initialize the library with the numbers of the interface pins
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
int temperature = A0;
int fan = A2;
int sensorInput;

void setup()
{
  Serial.begin(9600);
  pinMode(fan, OUTPUT);
  pinMode(temperature, INPUT);
  // set up the LCD's number of columns and rows:
  lcd.begin(16, 2);
  // Print a message to the LCD.
  lcd.print("Temperature set:");
}

void loop()
{
  //getting input temperature value
  double sensorValue = analogRead(A1);
  byte setTemp = map(sensorValue,0,1023,15,30);
  delay(1000);

  //converting the voltage double tmp;
  sensorInput = analogRead(A0);
  double tmp;
  tmp = (double)sensorInput / 1024;
  tmp = tmp * 5;
  tmp = tmp - 0.5;
  tmp = tmp * 100;

  //turning fan on if the tempertaure is not what is required by the user
  if(tmp <= setTemp + 2)
  {
    analogWrite(fan,250);
    delay(1000);
  }

  else if(tmp >= setTemp - 2)
  {
    analogWrite(fan,250);
```

```
    delay(1000);
  }

  //setting up LCD desplay
  lcd.setCursor(0, 1);
  lcd.print(setTemp);
  delay(1000);
}
```