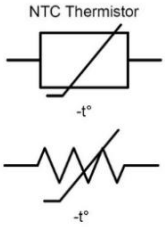
THERMISTOR :

Thermistor, a sort of resistor whose protection relies upon temperature. In our project we used a Negative temperature Coefficient Thermistor whose resistance decreases with increase in temperature and thereby it acts as a temperature sensor. Because of its high sensitivity it is capable to sense even small changes in the temperature



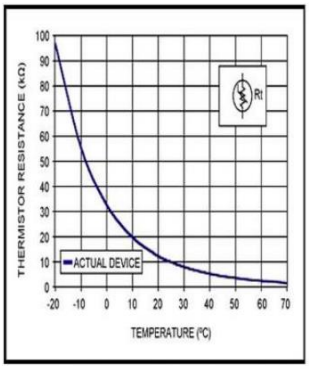


Fig1. Thermistor

Fig.2 NTC electrical Symbol and graphical representation of NTC Thermistor resistance and temperature.

LOGIC:

R2 = R1 * (1023.0 / (float)Vo - 1.0);

logR2 = log(R2);

Temp = (1.0 / (c1 + c2*logR2 +

c3*logR2*logR2*logR2)); Temp = Temp 273.15;

Temp = ((Temp * 5.0)/ 9.0 - 70.0);

where R1 =10k ohms ;

c1= c1 = 1.009249522e-03, c2 = 2.378405444e-04, c3 = 2.019202697e-07;

GAS SENSOR

Gas Sensor (MQ2) module is valuable for fuel spillage area (home and undertaking). It is fitting for perceiving H2, LPG, CH4, CO, Alcohol, Smoke or Propane. Due to its high affectability and quick reaction time, estimation can be taken as quick as could sensibly be normal. The affectability of the sensor can be adjusted by potentiometer

Gas sensor formula:

SensorValue = AnalogRead(A0);

SensorVoltage=SensorValue/1024*5.0;

Fig.3 gas Sensor (MQ2)

LDR:

Light Dependent Resistor or photocell is a light-controlled variable resistor whose protection diminishes with the expansion in the force of light: Photo Conductivity. Because of their low cost,ease of manufacturing they are widely using in many applications. They are made from semiconductor materials to enable them to have light sensitive properties

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