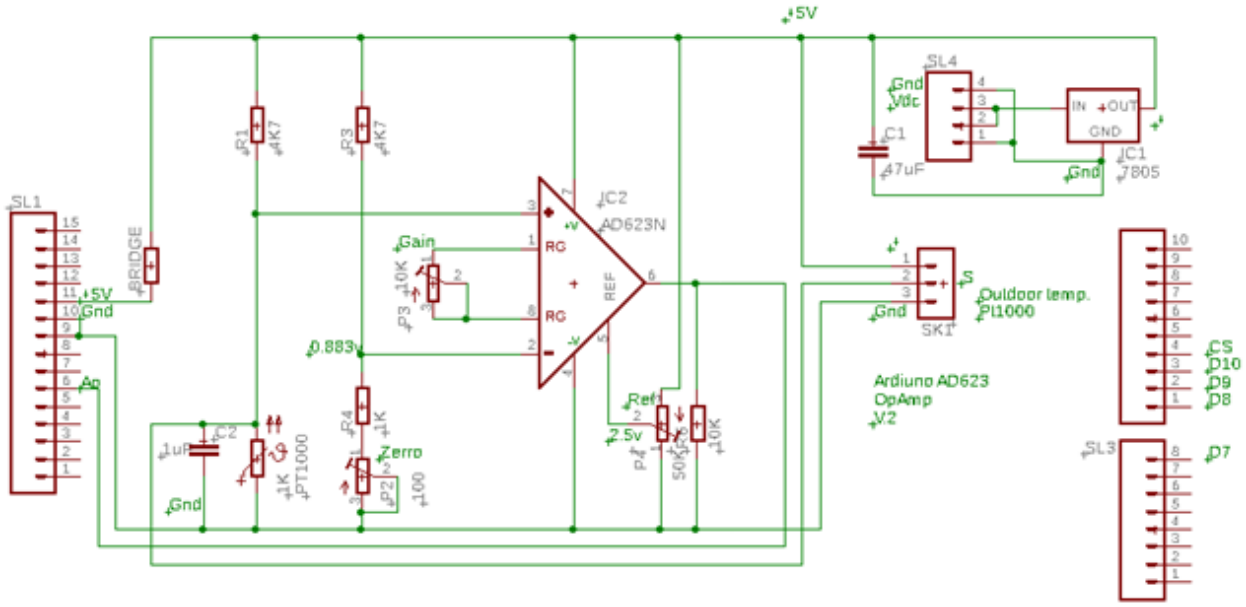
Op-Amp shield

The op-amp shield is to be use for the “Arduino UNO”.
This project is made to be use with a two wired Pt1000 temperature sensor.
Up to five shields can be fit over each other.

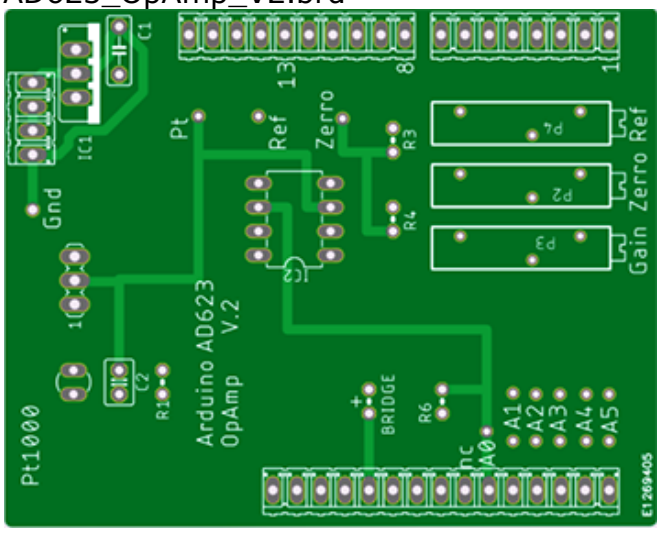
The circuit diagram

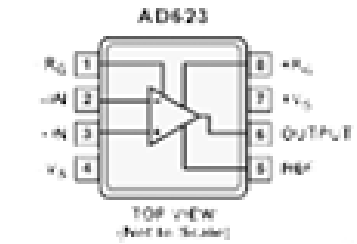
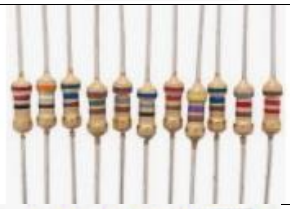


Component list

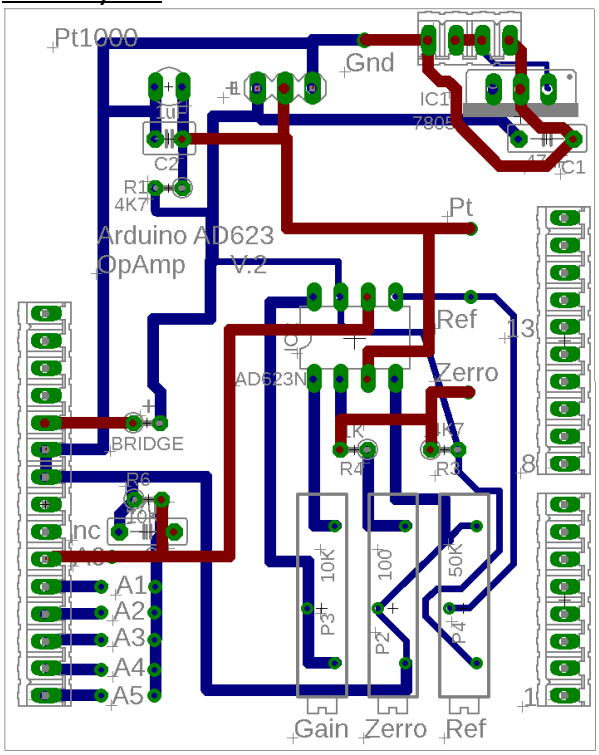
Arduino UNO R3

PCB AD623_OpAmp_V2.brd



Op-amp AD623	 
Capacitors 47uF 1uF	
Resistors 1kΩ 4.7kΩ 10kΩ	
Trim potentiometer 100Ω 1x 10kΩ 1x 50kΩ 1x	
ArduinoUNO connectors	
Female precision header	
Female header	

PCB layout



Several Op-Amp shields can be fitted up to 6, the initial shield is connect to “A0”. For fitting more boards over each other the hole for “A0” should be drilled out and to solder a wire bridge over “A1” or other.

The “BRIDGE” has to be made if the power comes from the Arduino board.

Test points for adjustments are: Gnd, Pt, Ref and Zerro.

PCB board
Download: AD623_OpAmp_V2.brd
(Eagle application required)

Sketch

```
// Pt1000 & AD623 TEST
// **** only for one board ****;
float Vout0; //analoge input A0
float Volt0; //analoge voltage input A0
float Temp; // decimaal berekende temperatuur

void setup() {
Serial.begin(9600);  //  baud rate serial port (USB)
}

void loop() {
Vout0 = analogRead(A0);
Volt0 = ((Vout0*50/1024)-25)*2.68;
Temp = Volt0;
Serial.print ("Vout-0 =  ");
Serial.print (Vout0);
Serial.print ("  Volt-0 =  ");
Serial.print (Volt0);
Serial.print ("  Temp =");
Serial.print (Temp);
Serial.println();

delay (1000);
}
```