

Sensors Technology

Basic electronic circuits – analysis and sensing applications

Lab excercises 02

Smilen Dimitrov

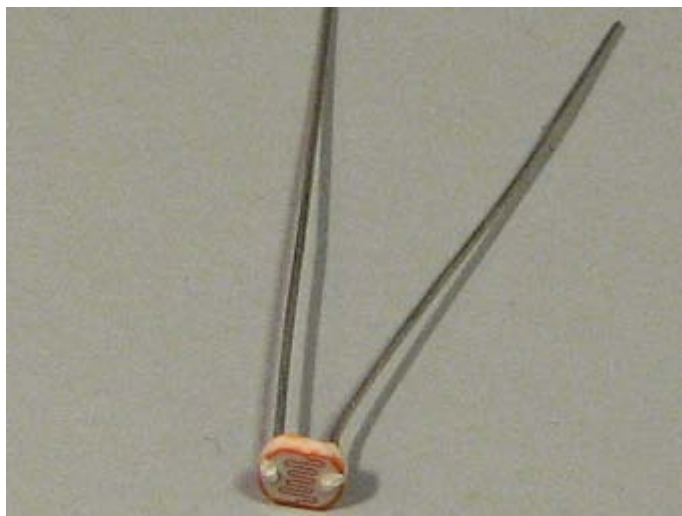
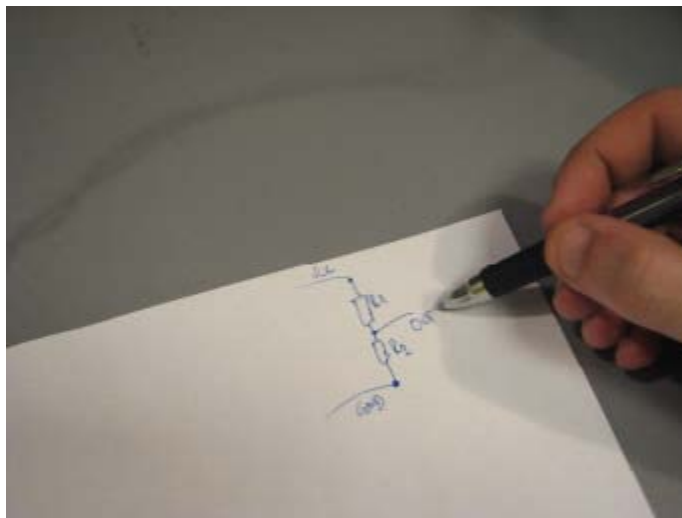
Contents

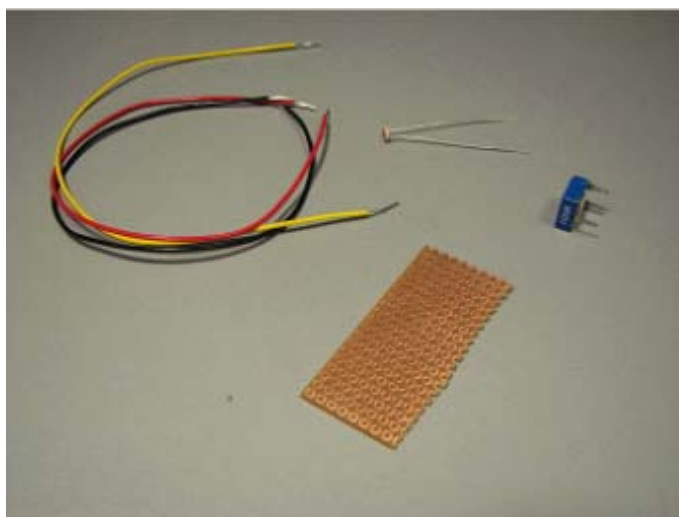
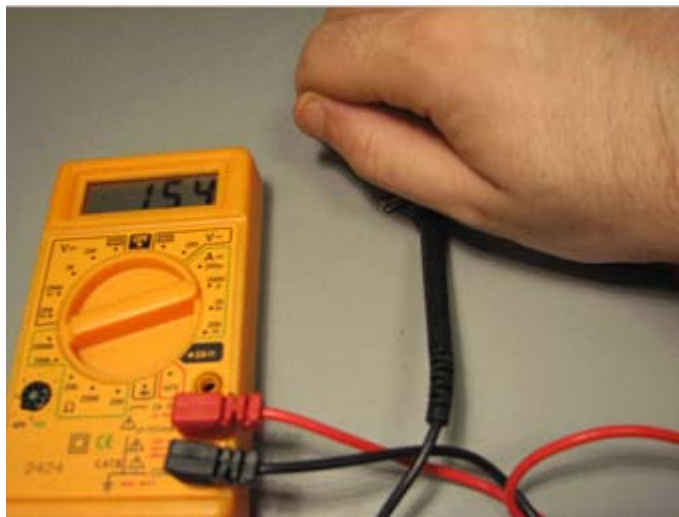
1	Introduction.....	3
2	A LDR (photoresistor) voltage divider circuit.....	3
2.1	Powering and measurement.....	15
3	FSR (Force-sensitive resistor) voltage divider circuit, implemented with Molex connectors	18
3.1	Powering and measurement.....	48

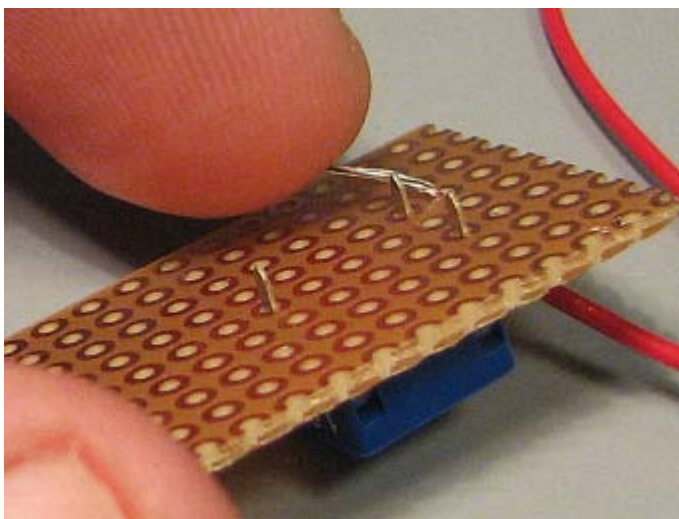
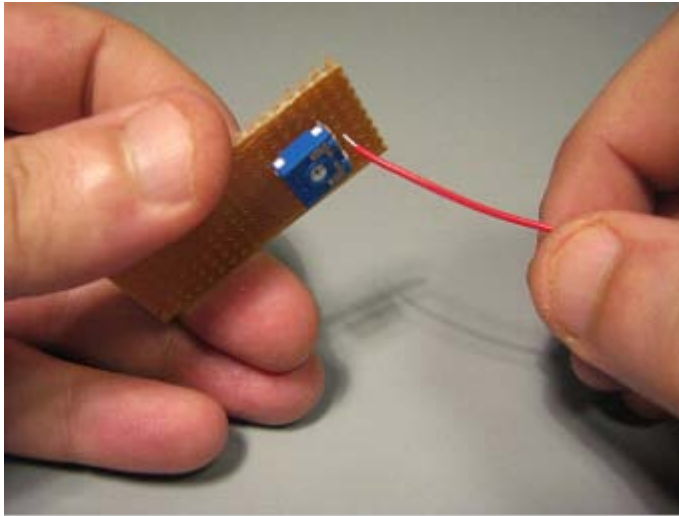
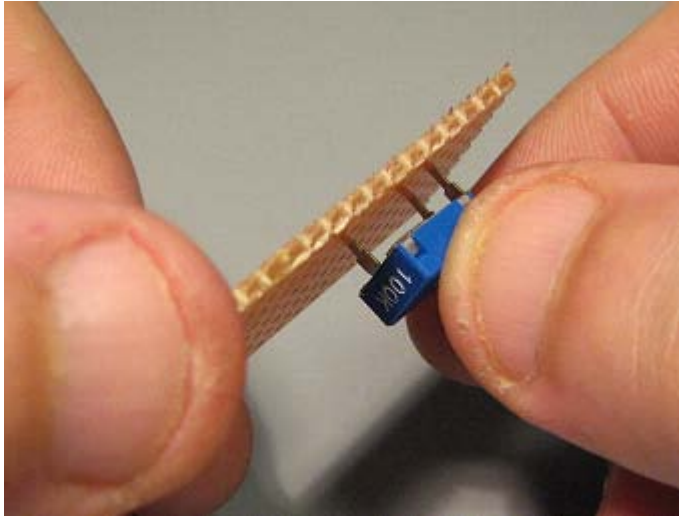
1 Introduction

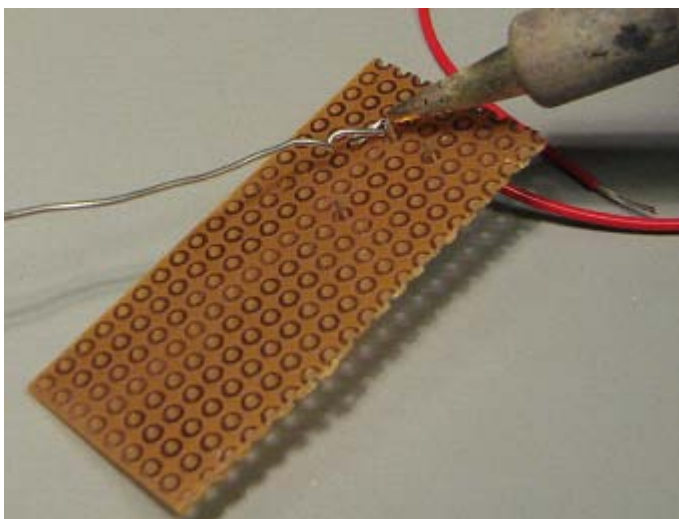
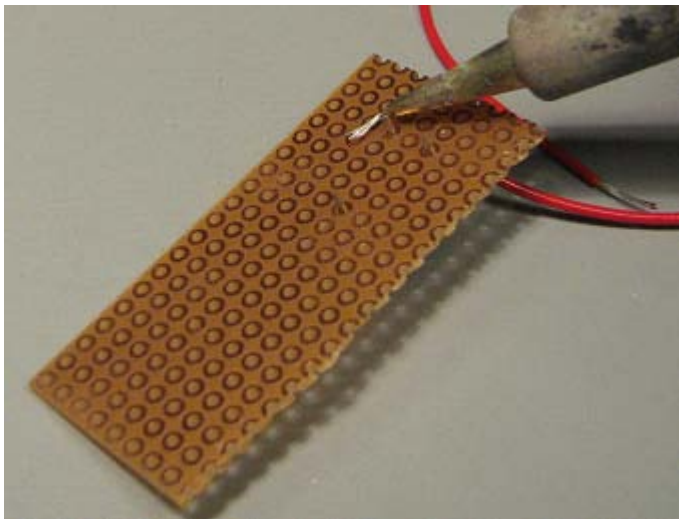
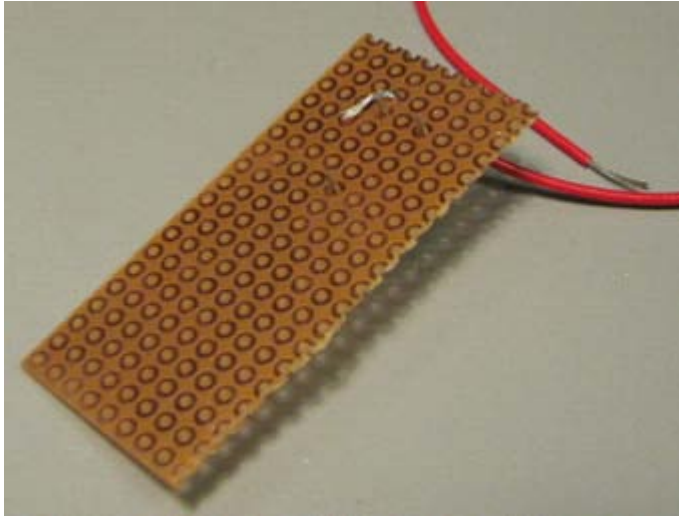
With this sheet, we begin our lab exercises in sensors technology. Therefore, we will first get acquainted with the tools at our disposal - and then we will proceed with implementation of some of the circuits discussed in the corresponding part of the lectures.

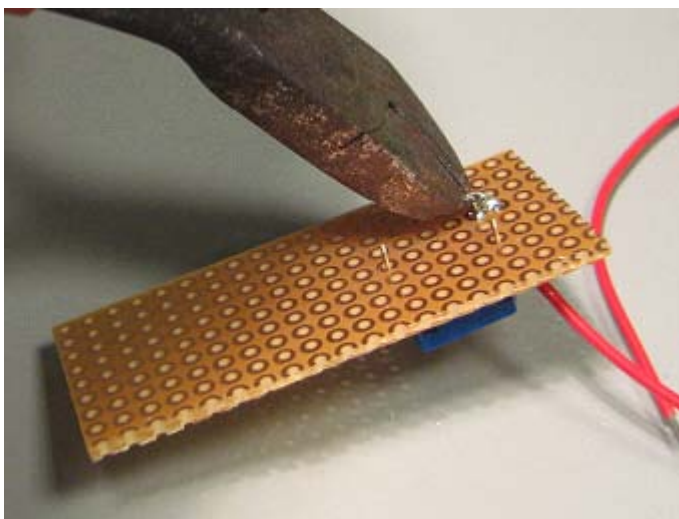
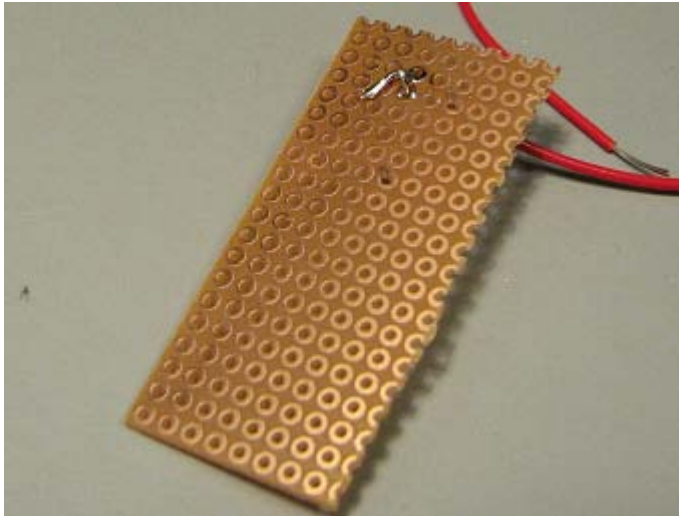
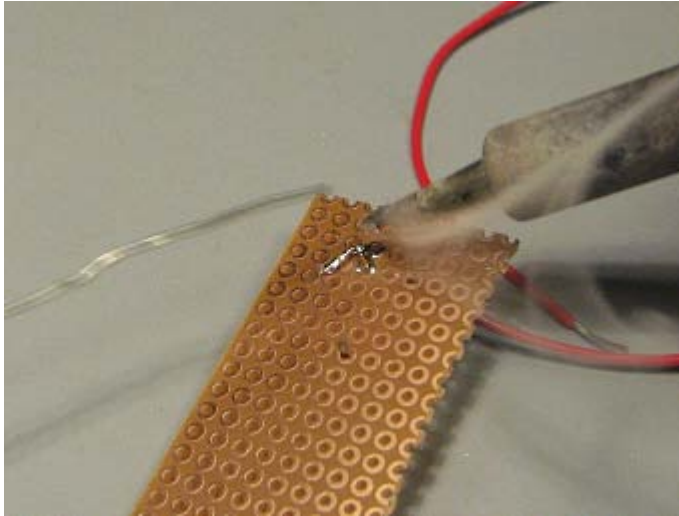
2 A LDR (photoresistor) voltage divider circuit

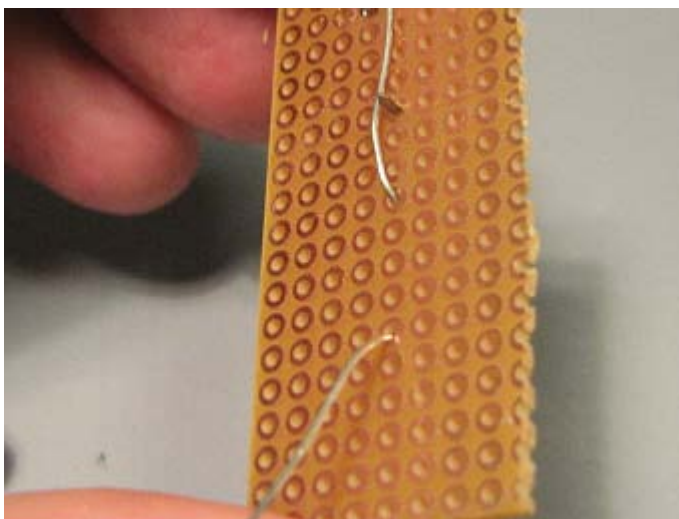
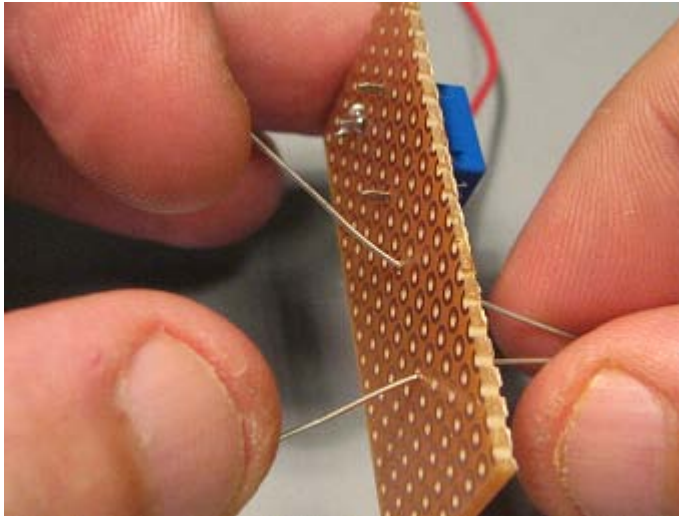
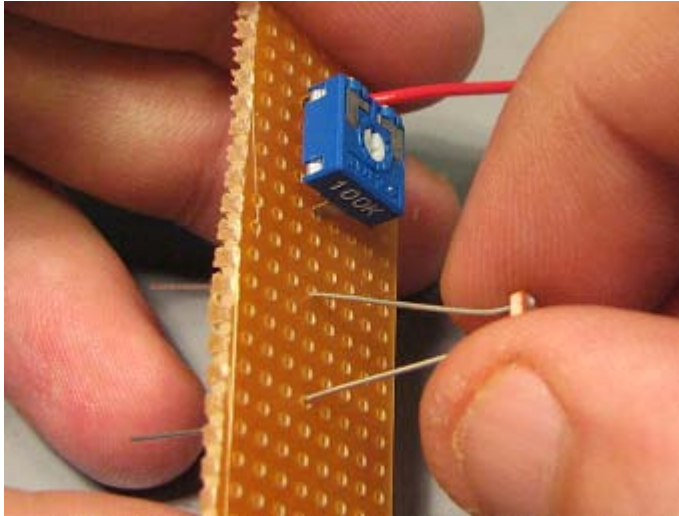


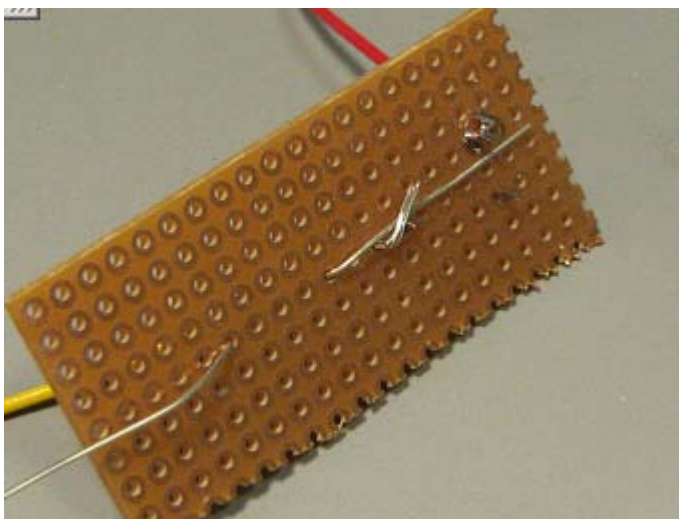
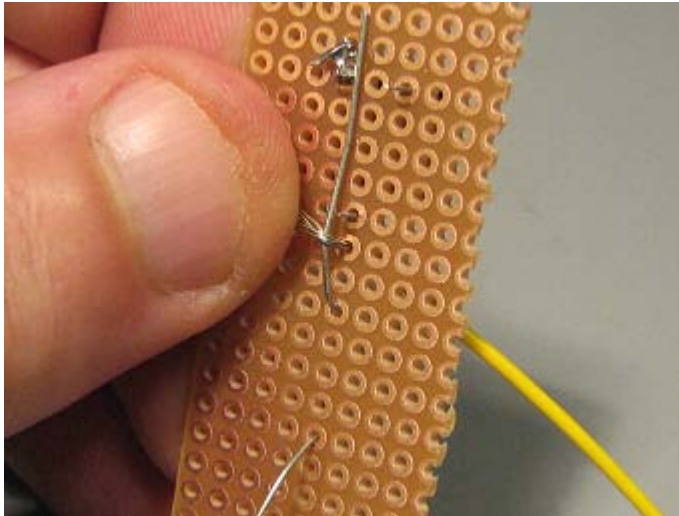
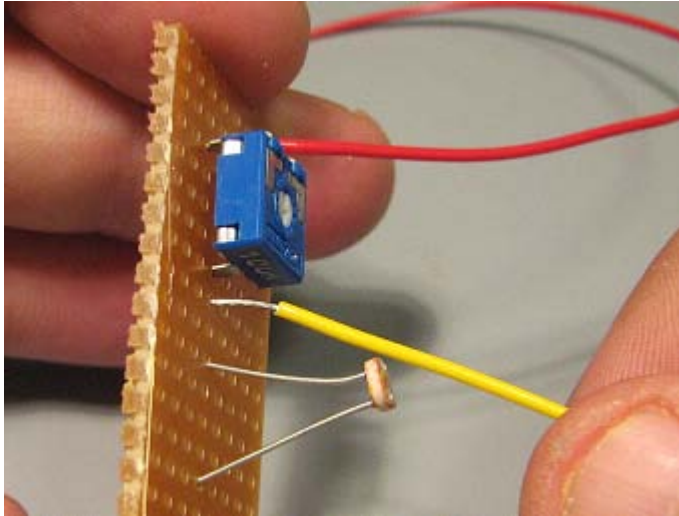


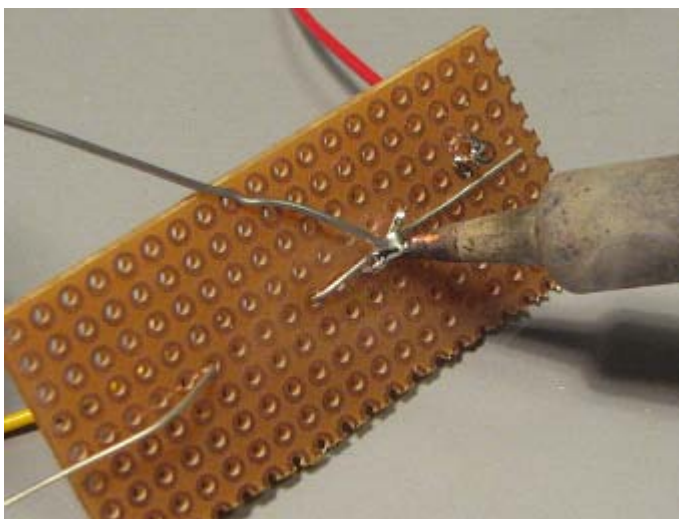
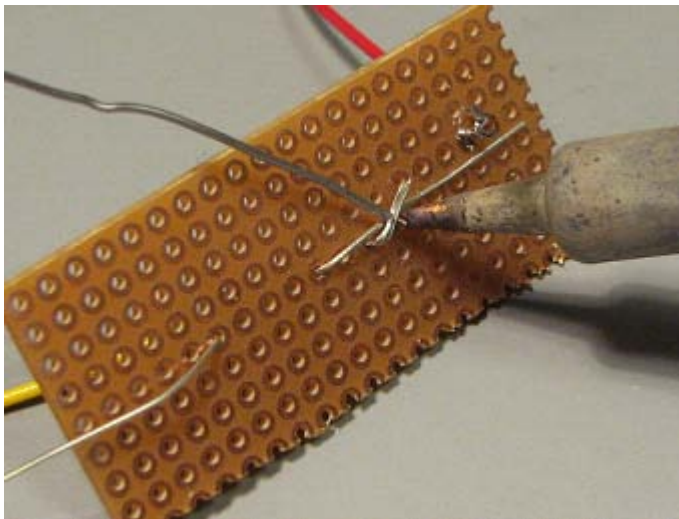
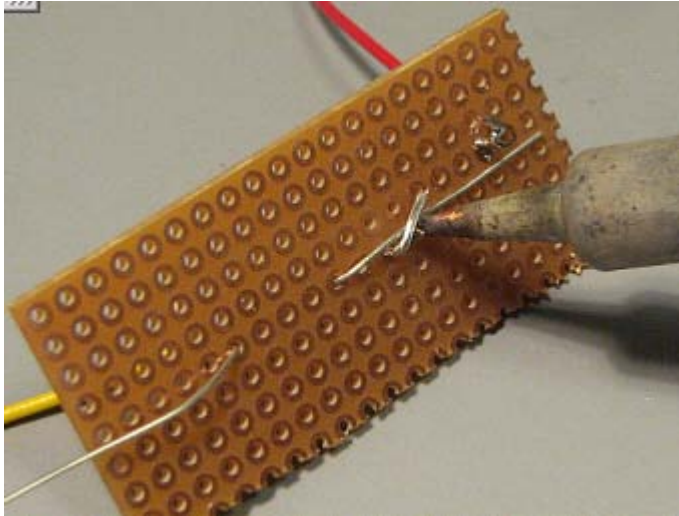


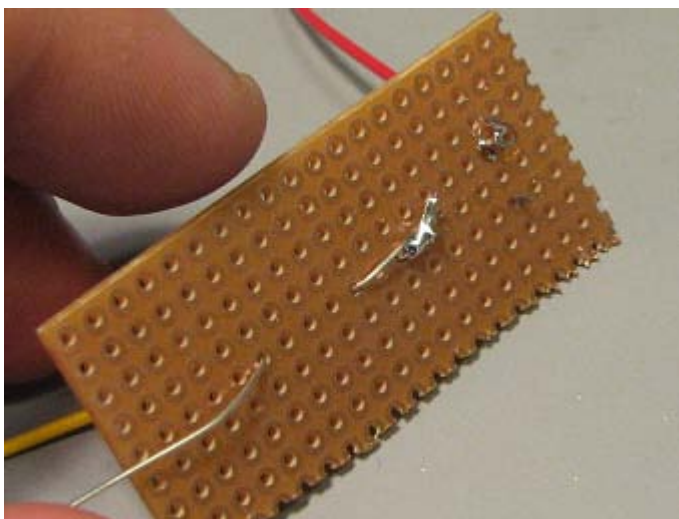
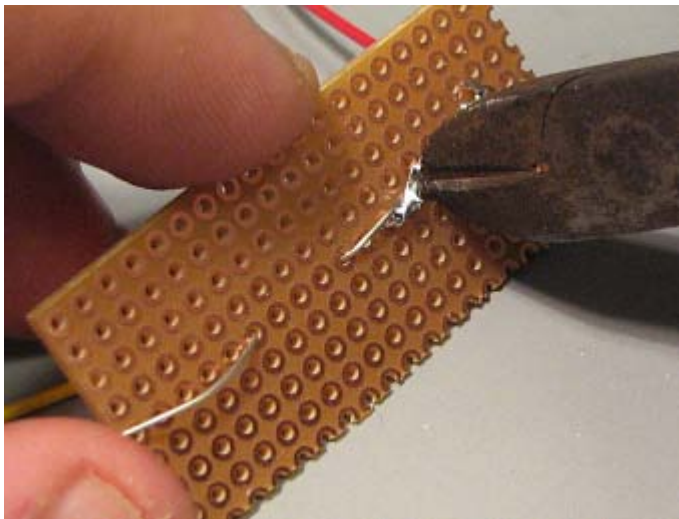
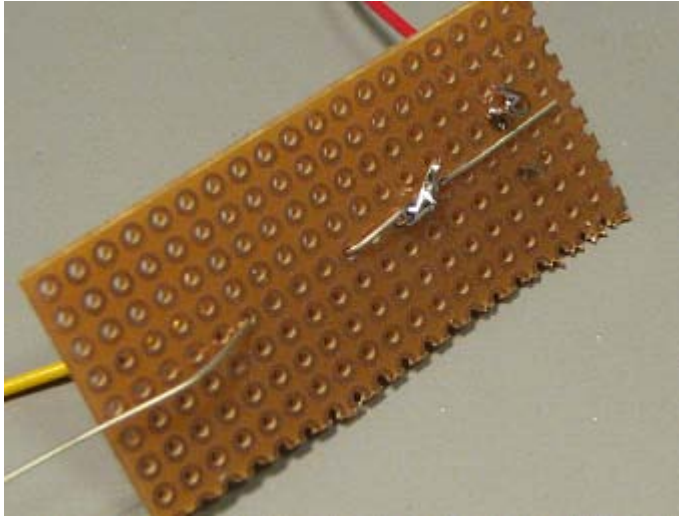


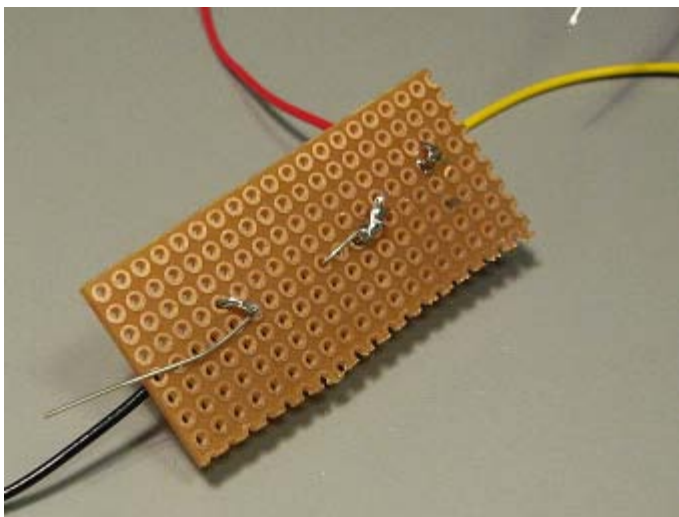
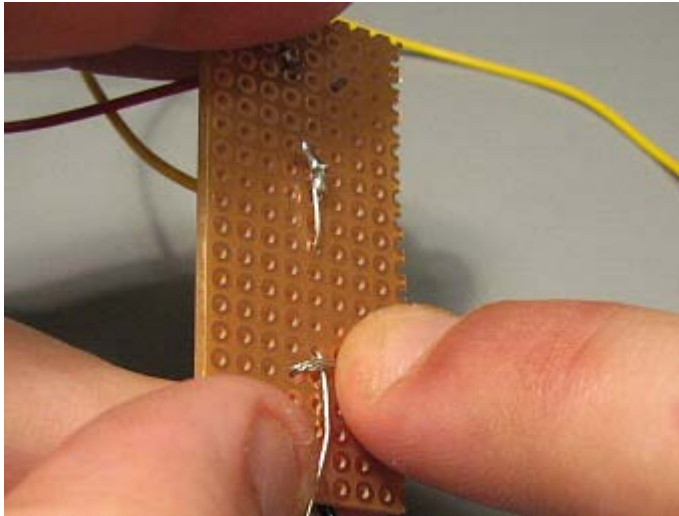
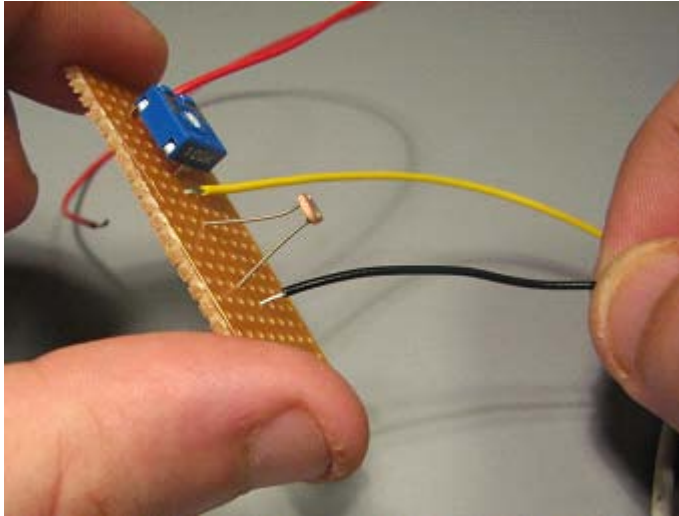


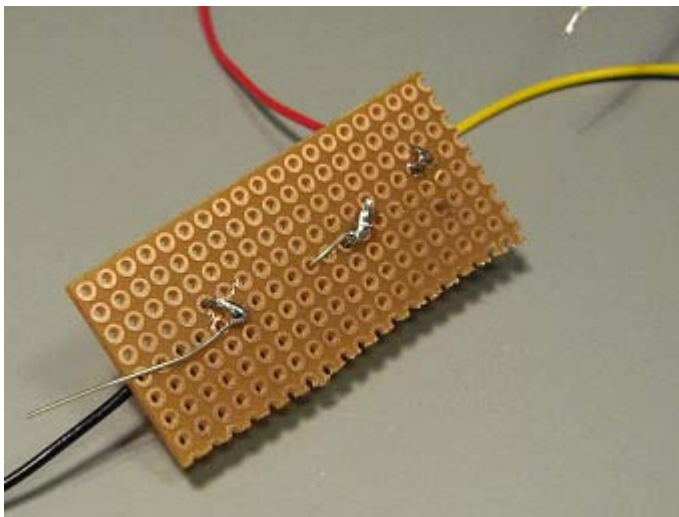
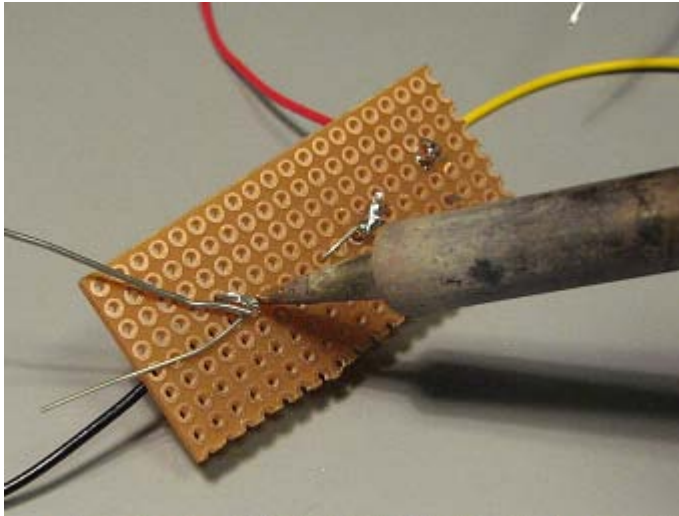
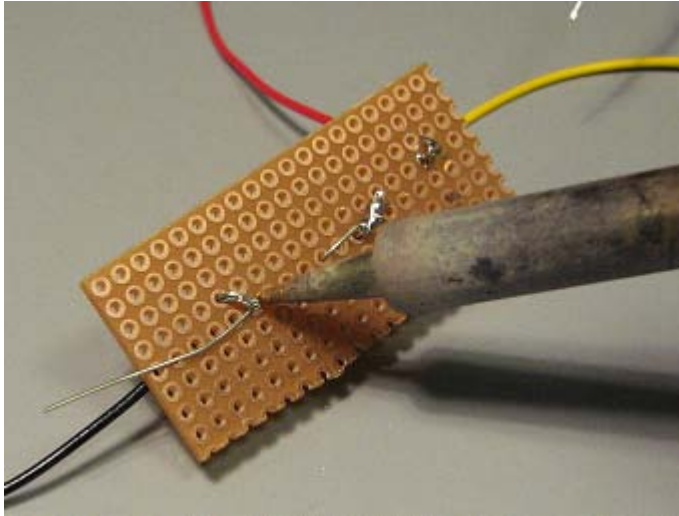


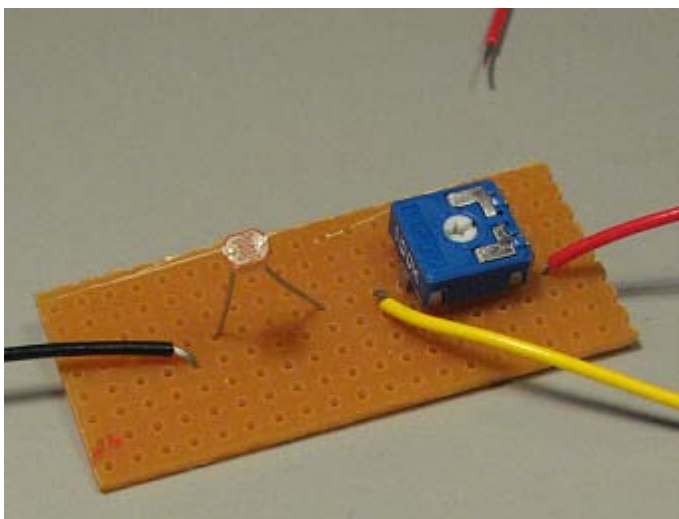
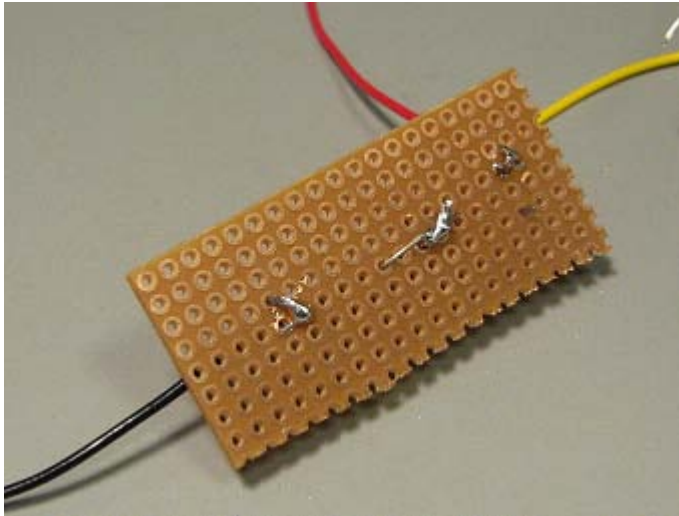
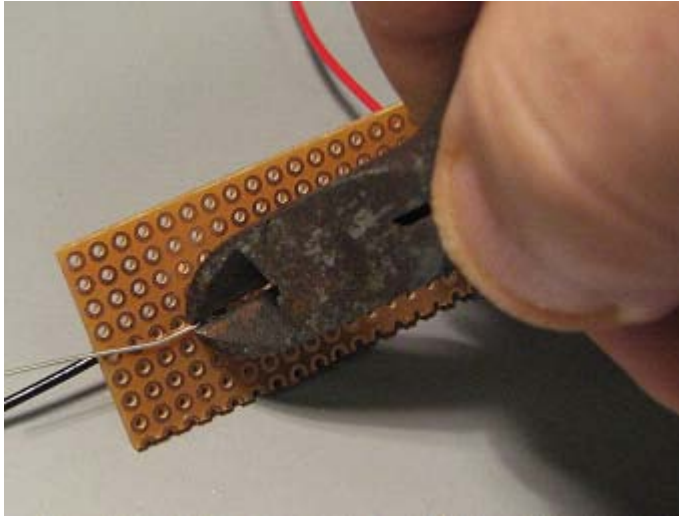




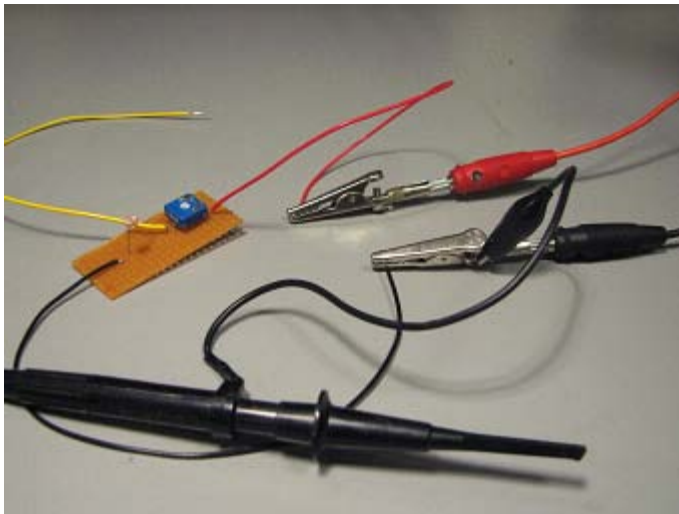
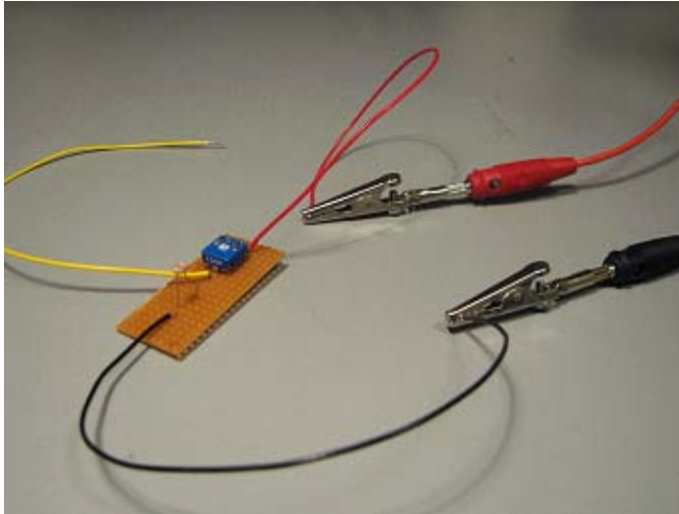


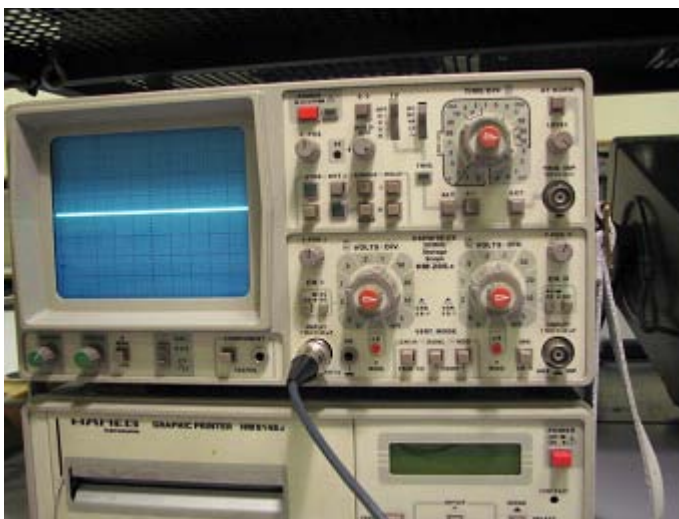
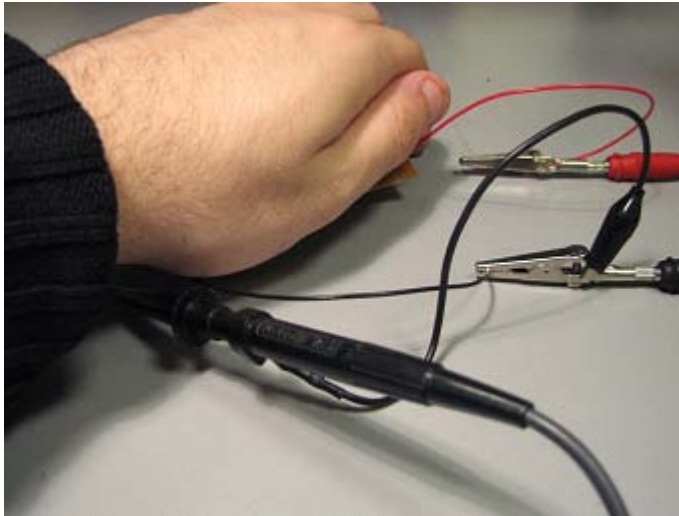
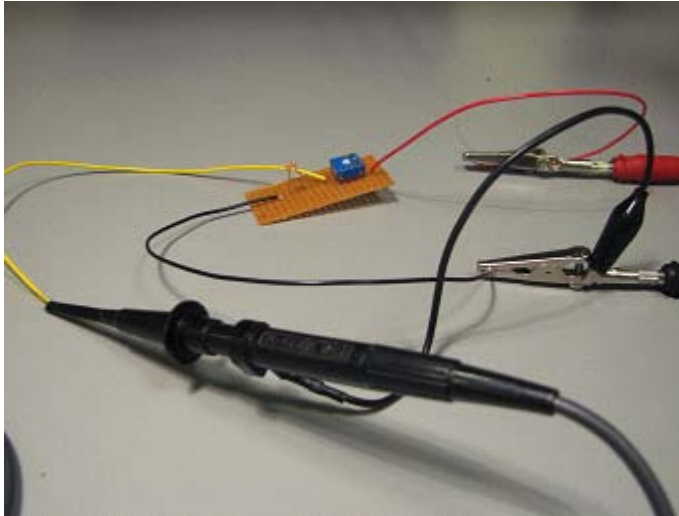


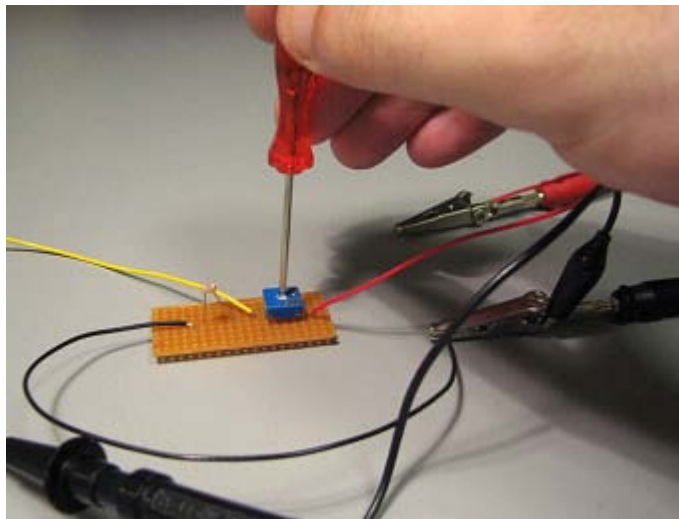
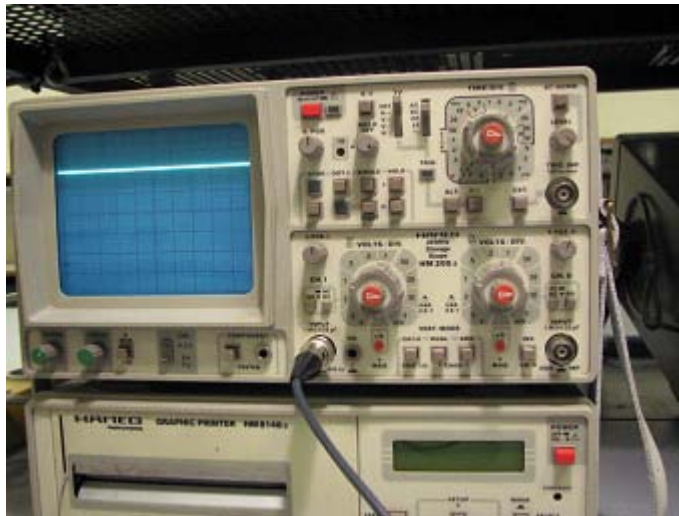




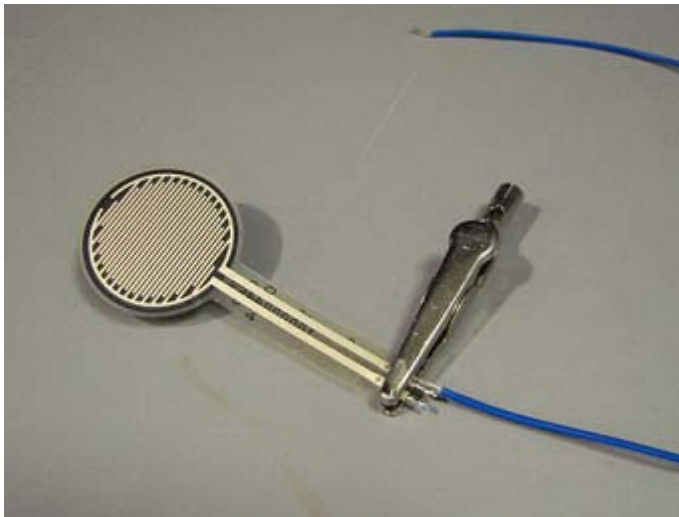
2.1 Powering and measurement

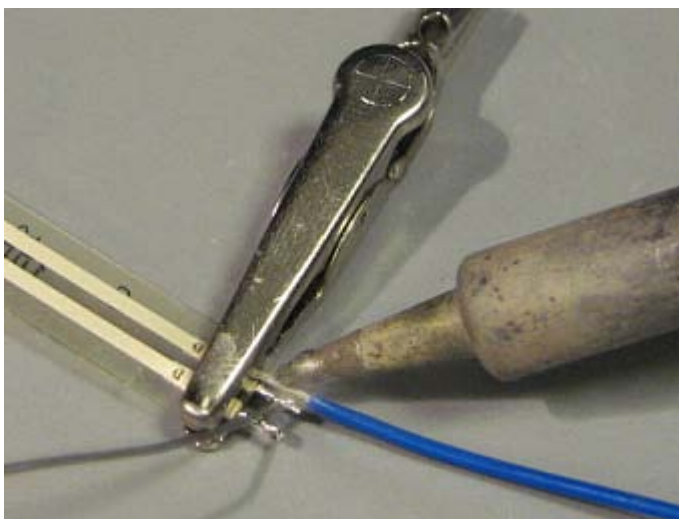
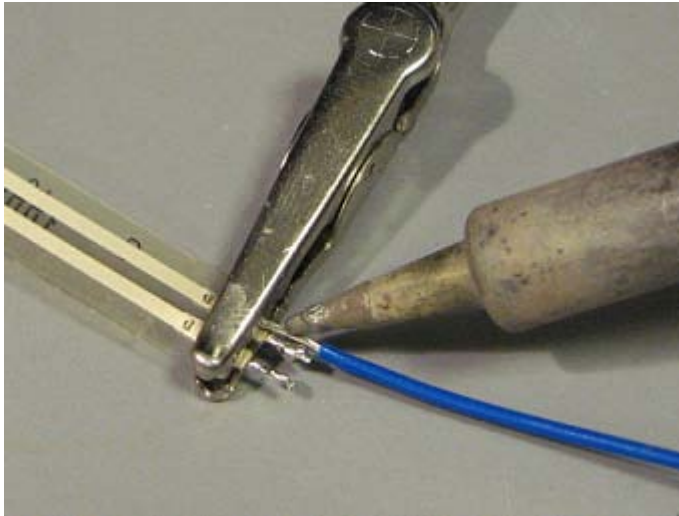
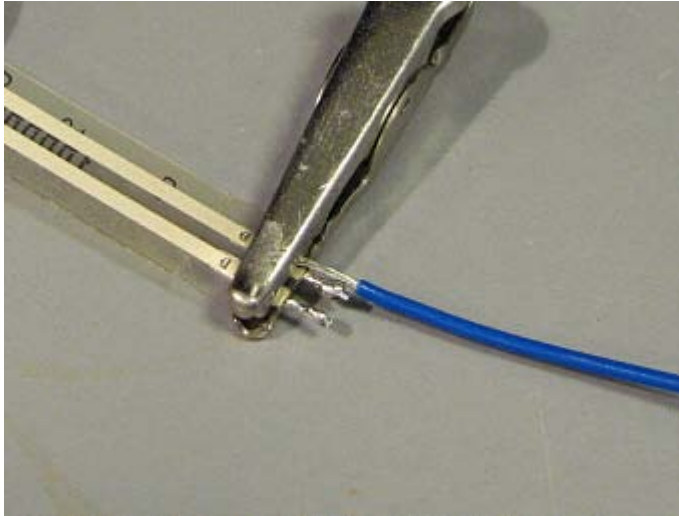


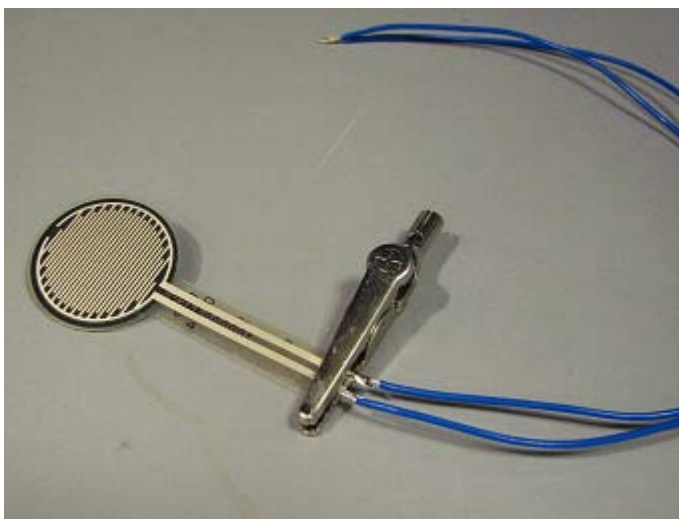
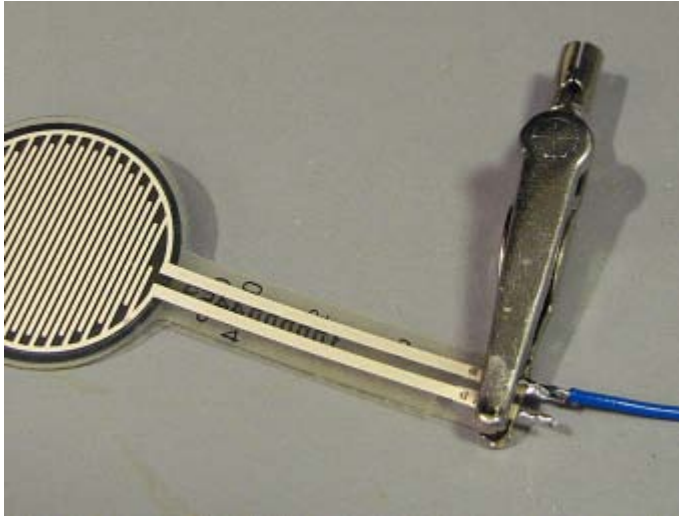


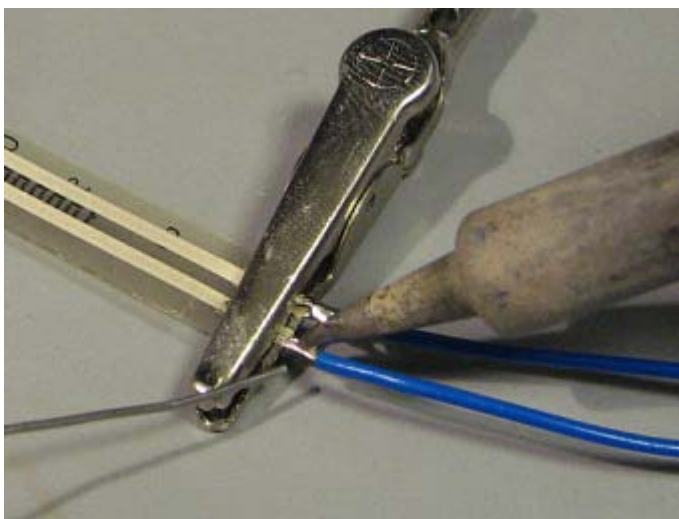
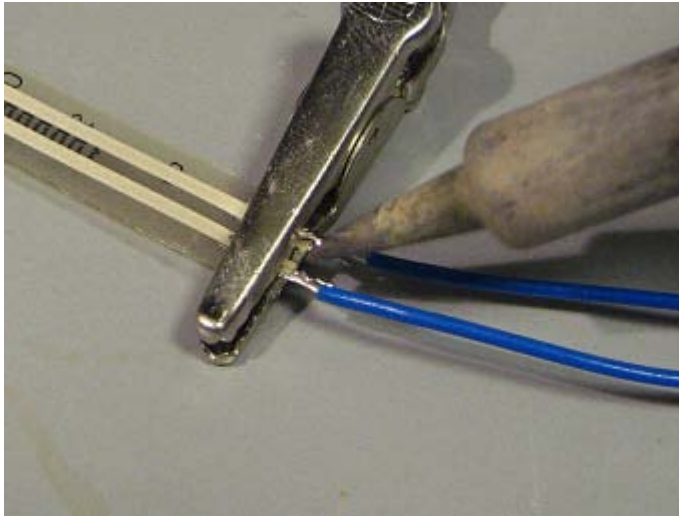
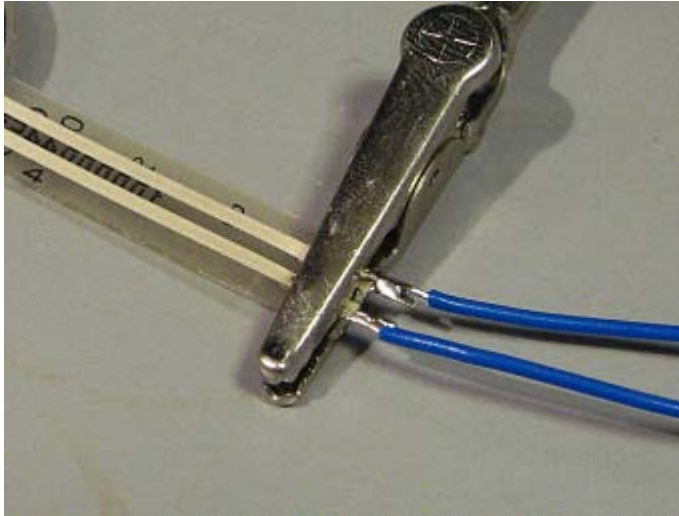


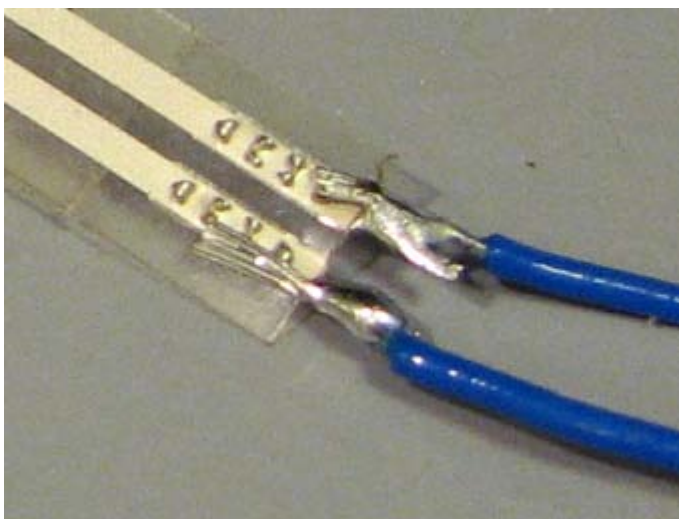
3 FSR (Force-sensitive resistor) voltage divider circuit, implemented with Molex connectors

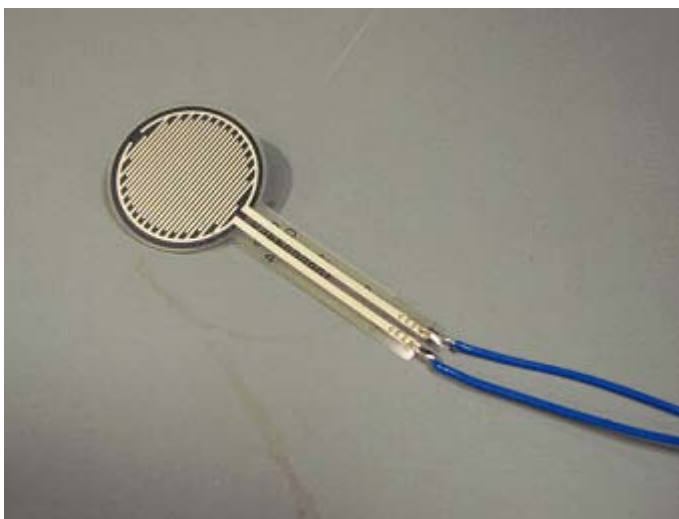
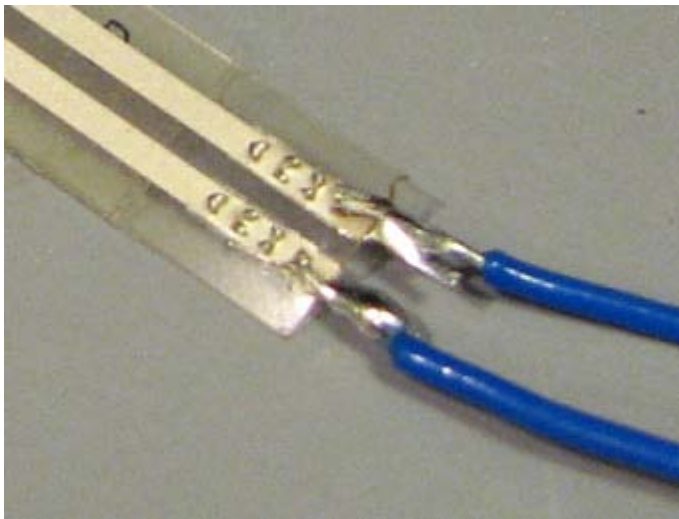
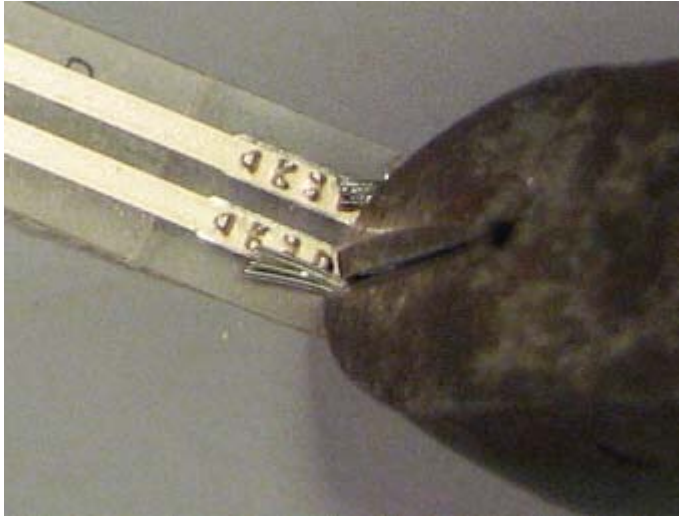


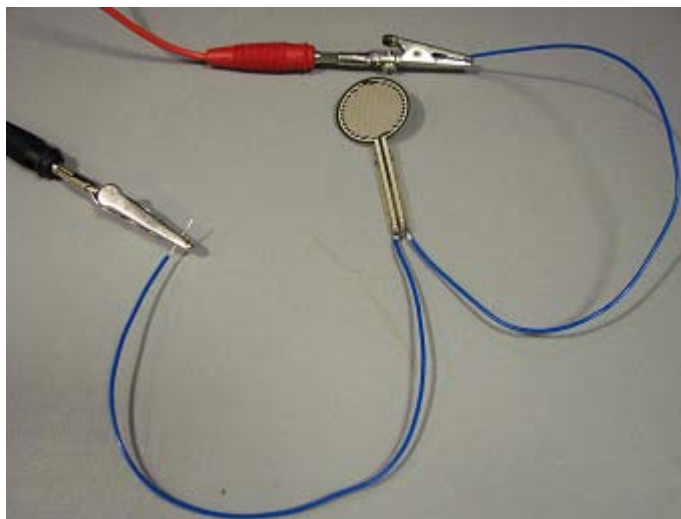
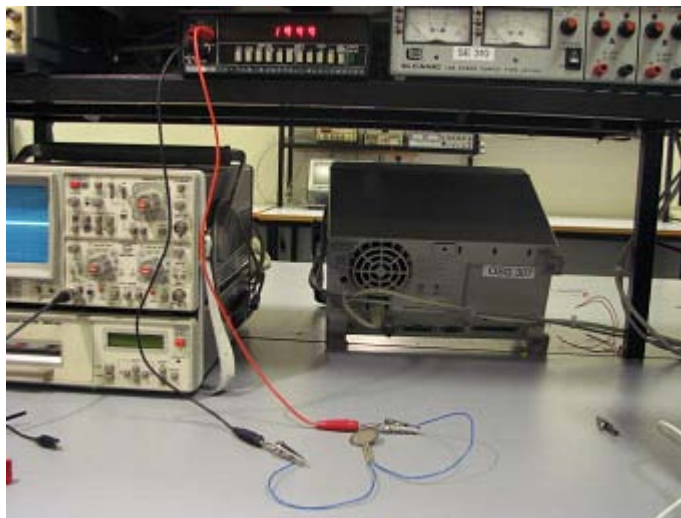


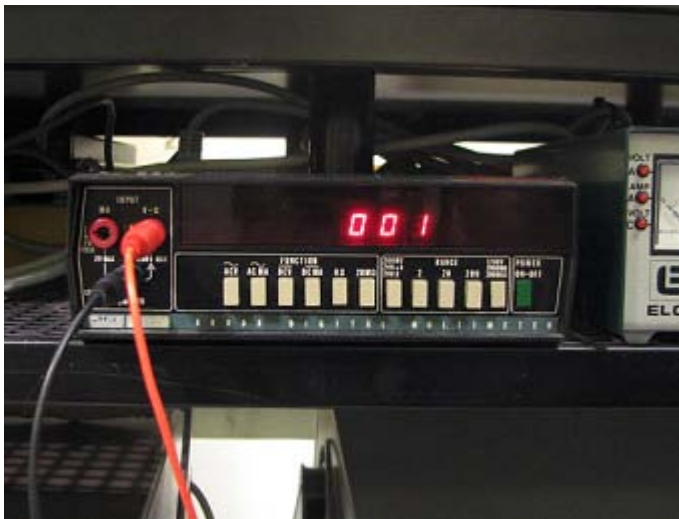
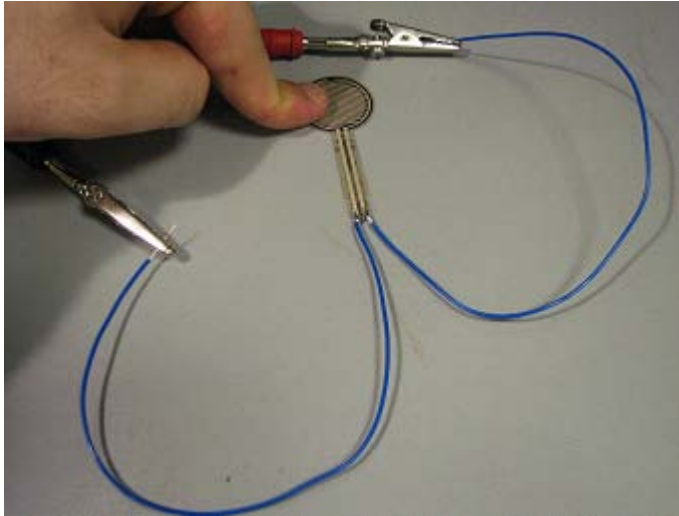


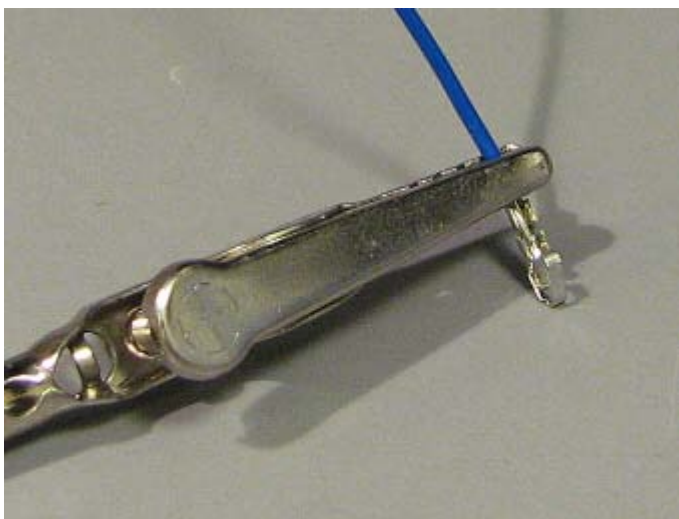
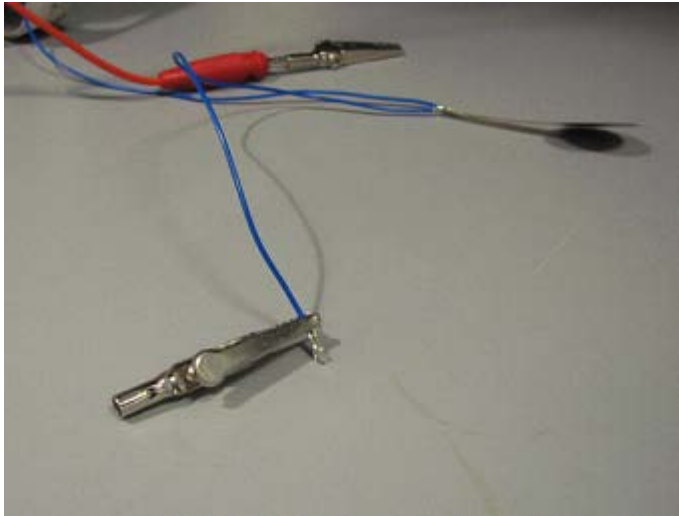
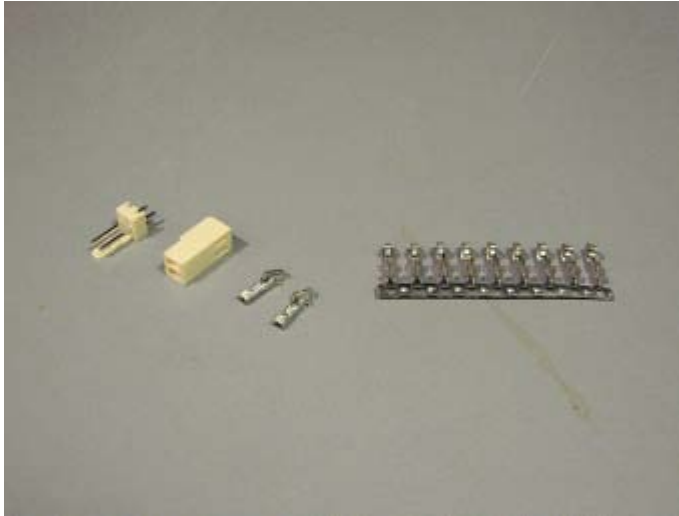


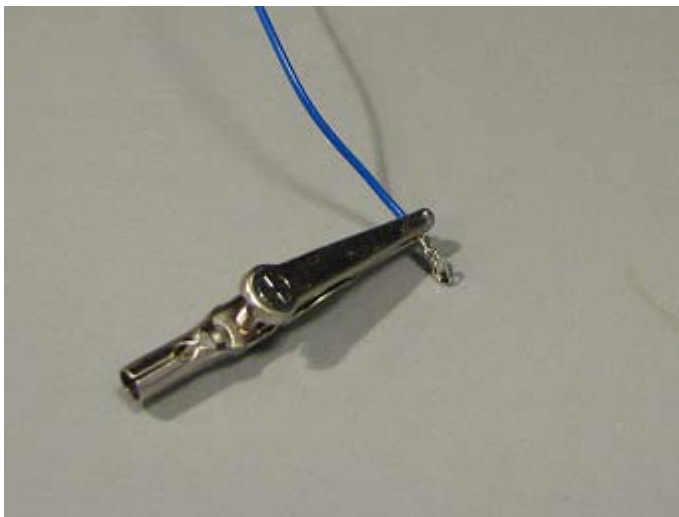
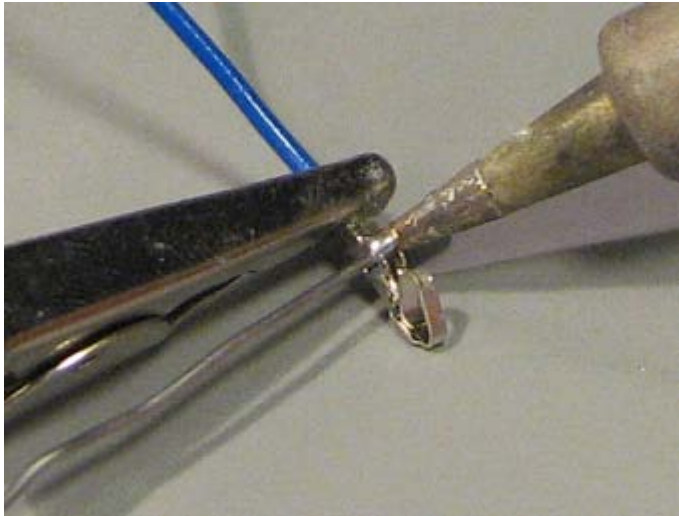
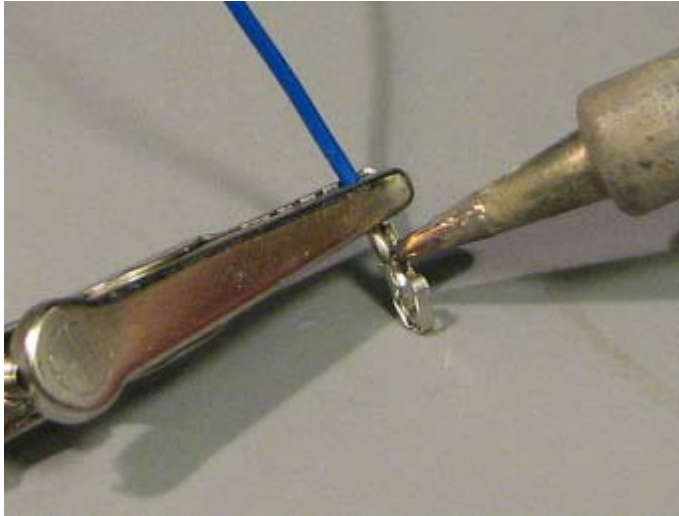


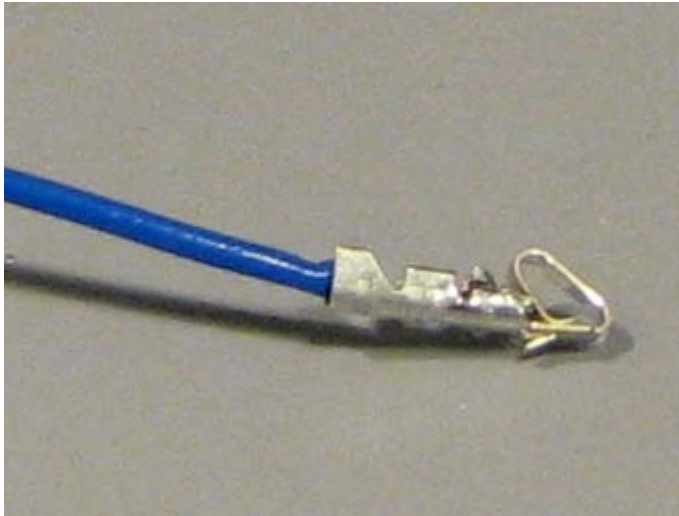


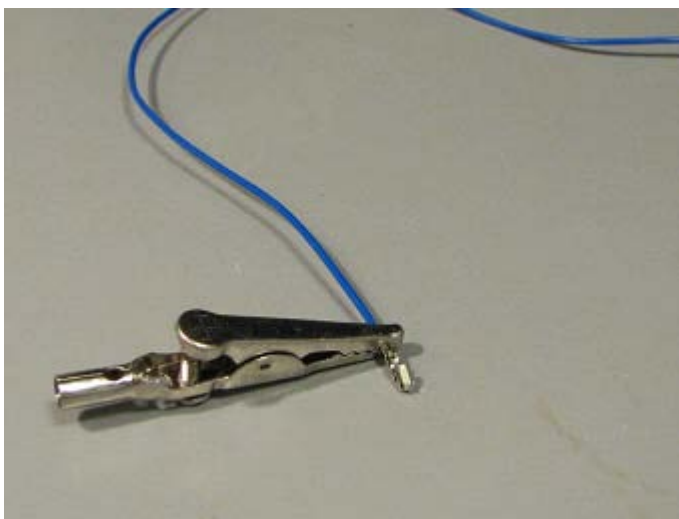
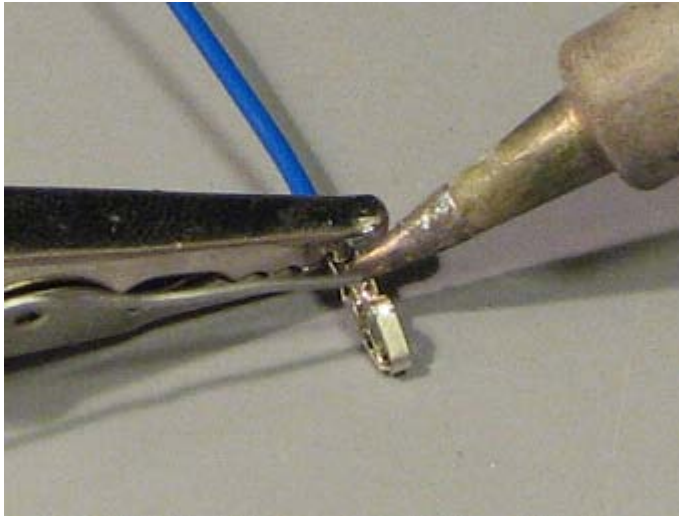
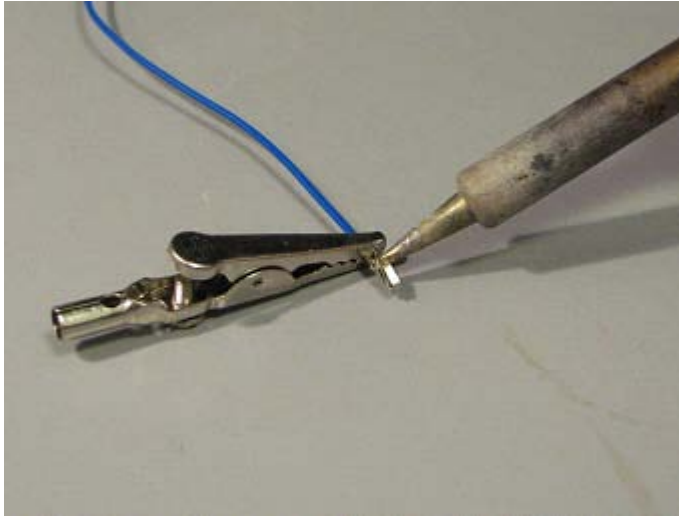


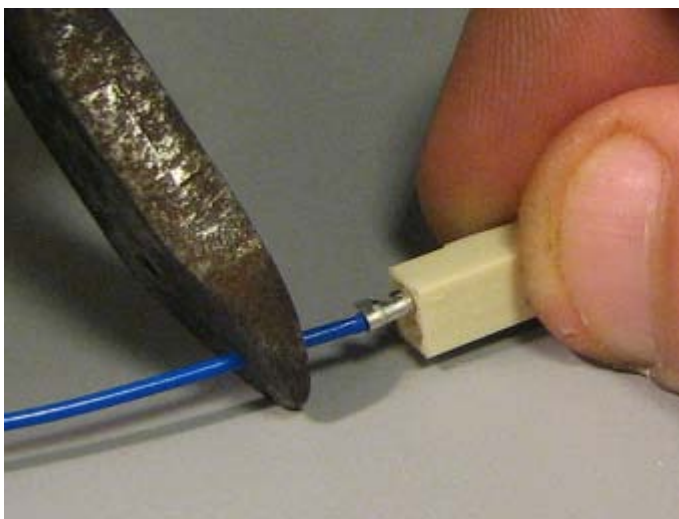
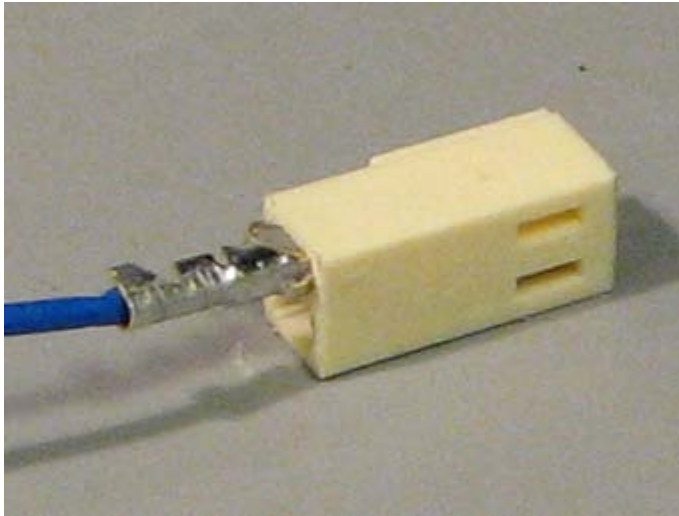
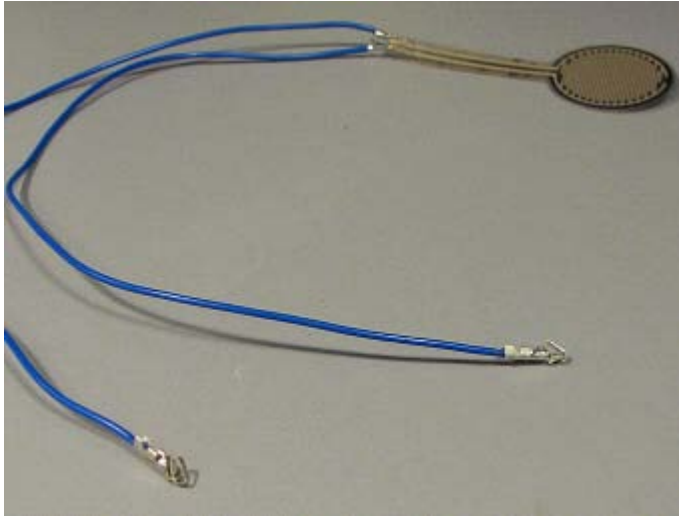


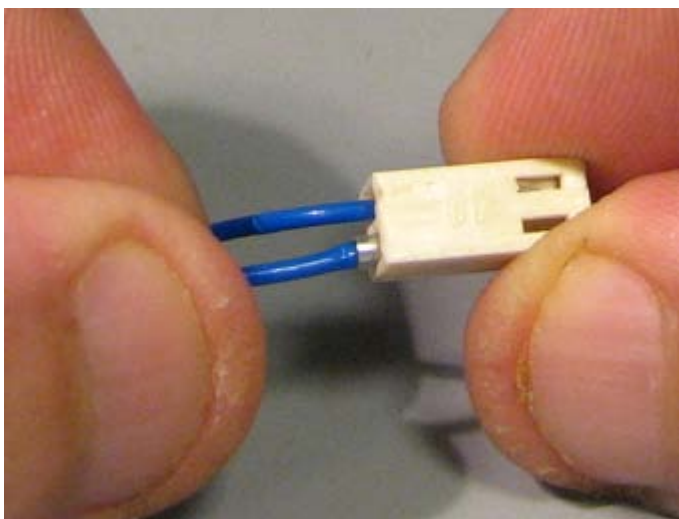
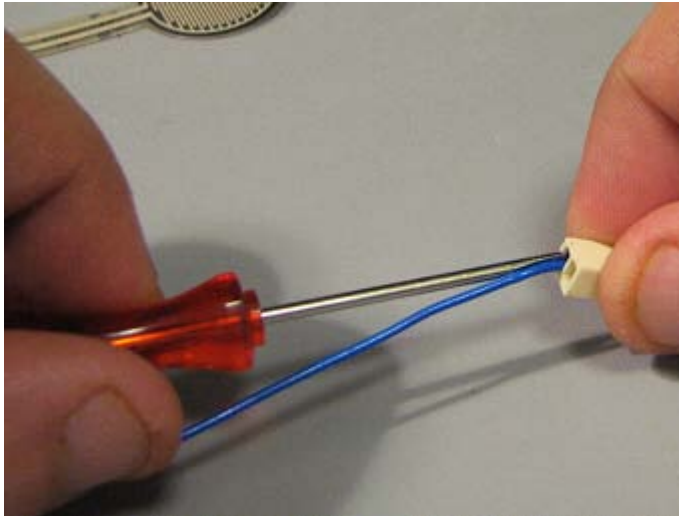
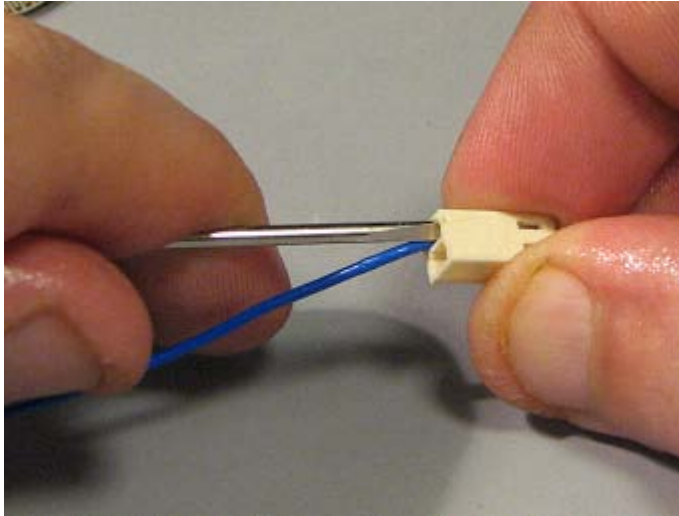


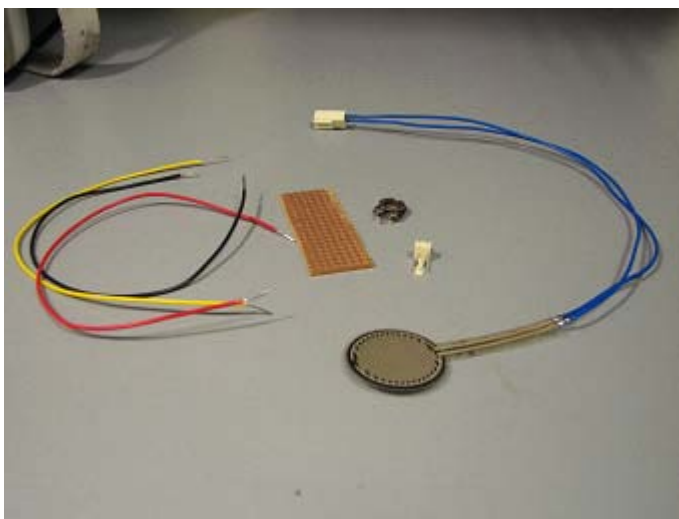
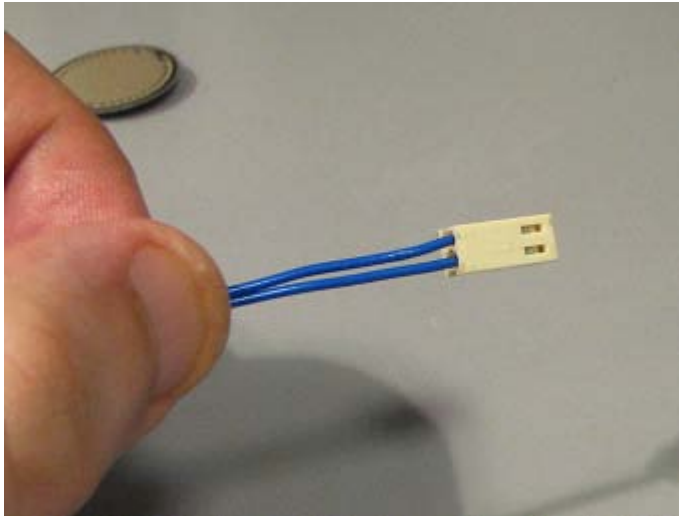
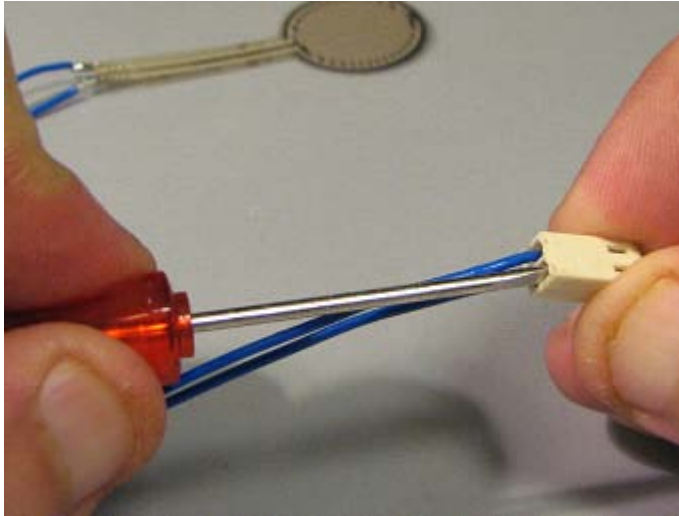


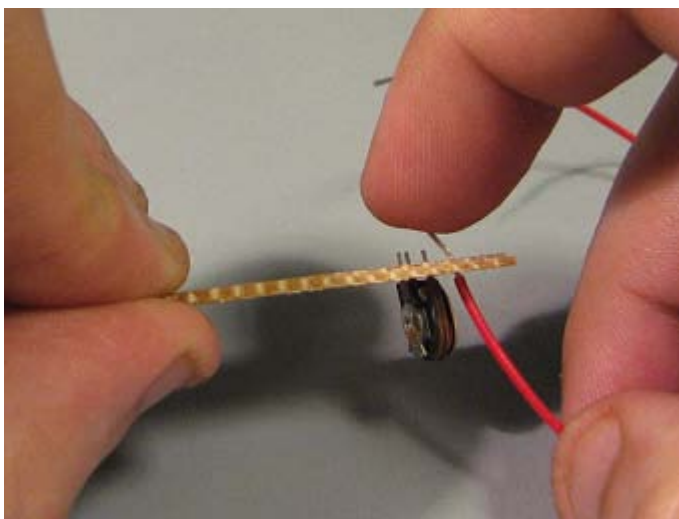
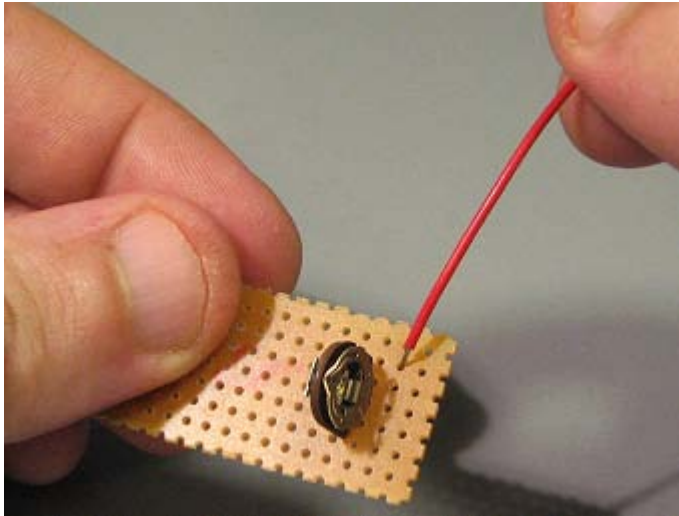
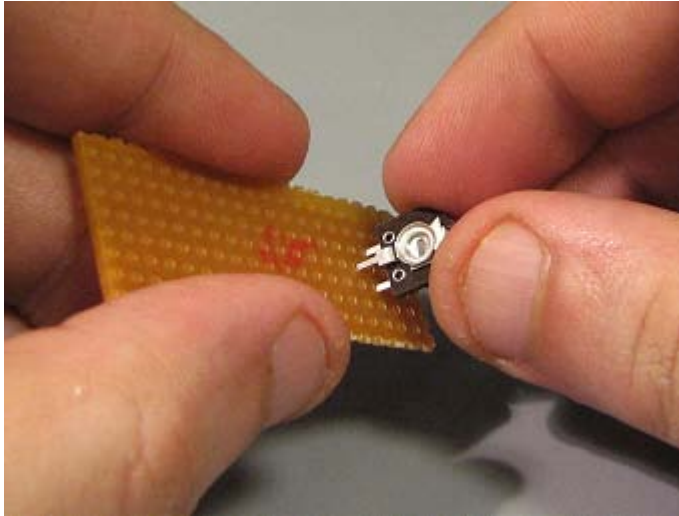


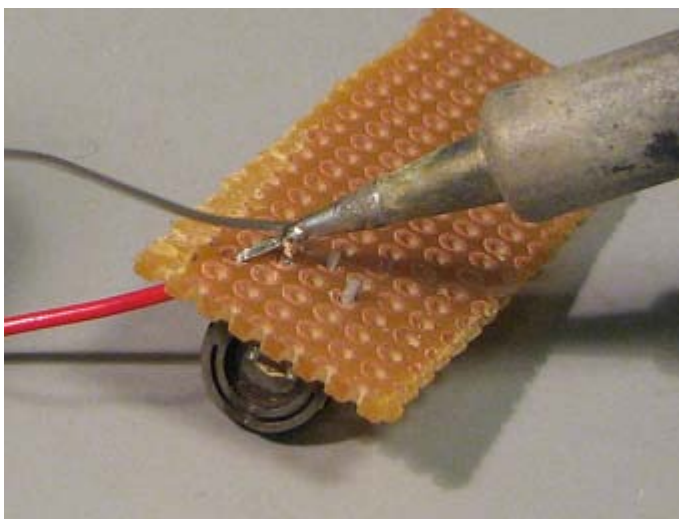
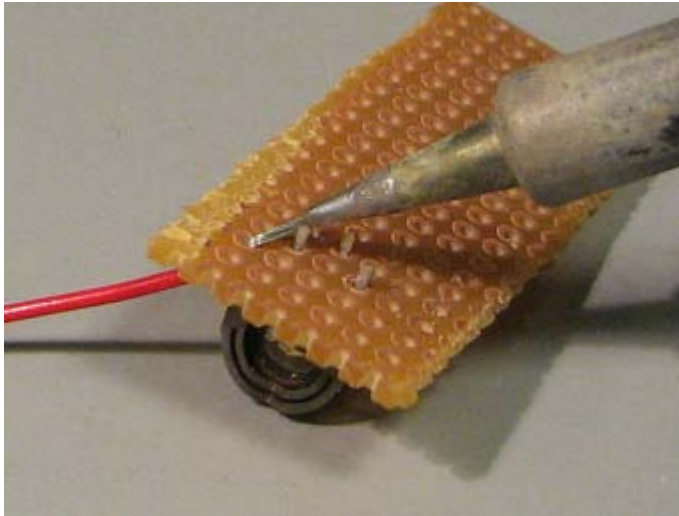
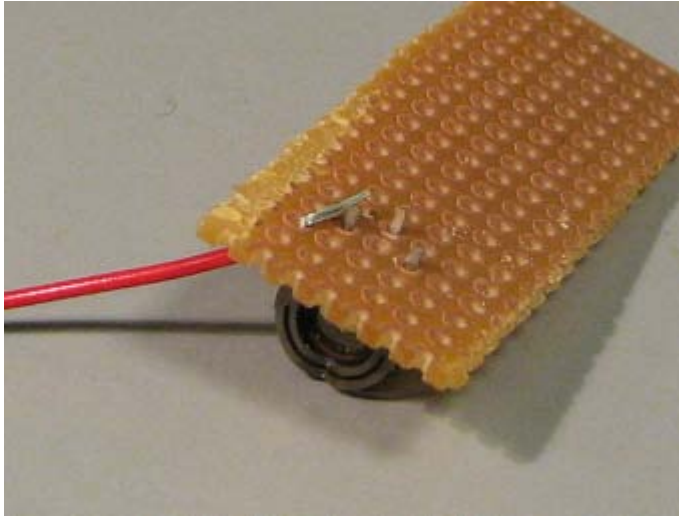


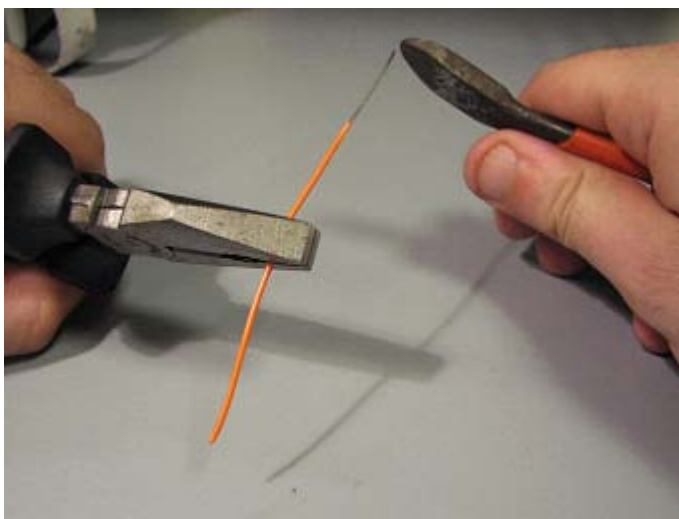
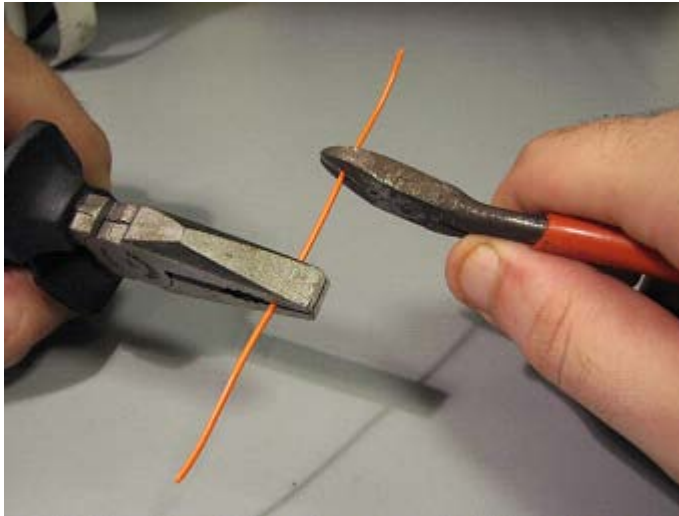
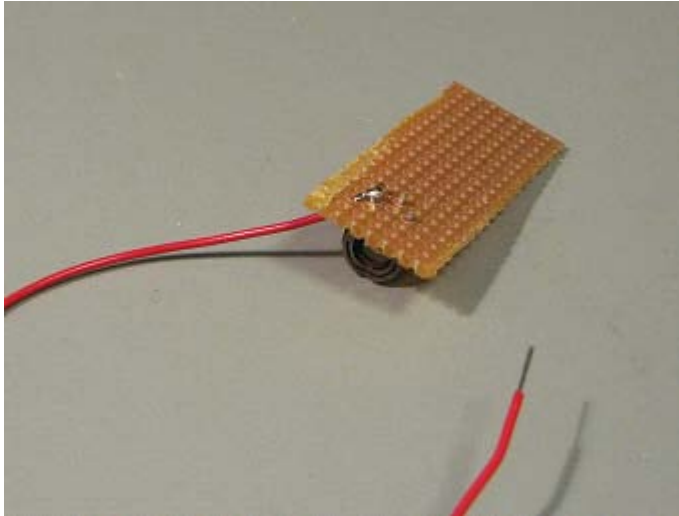


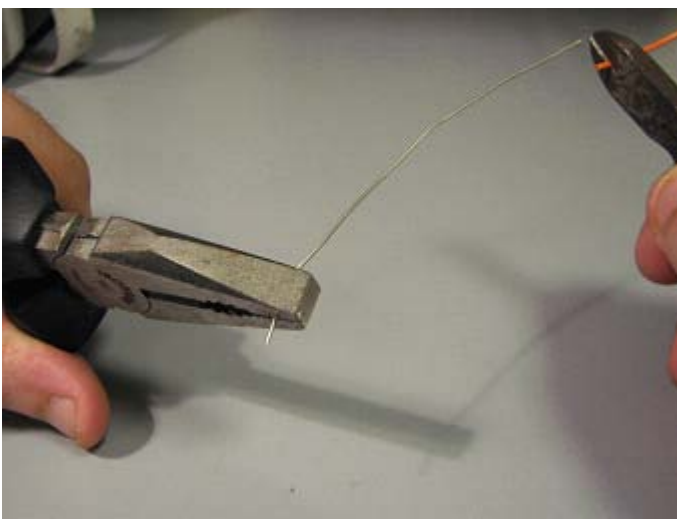
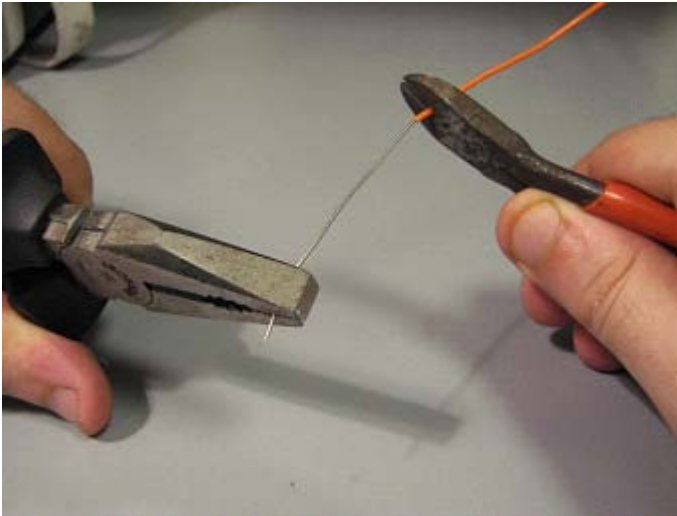
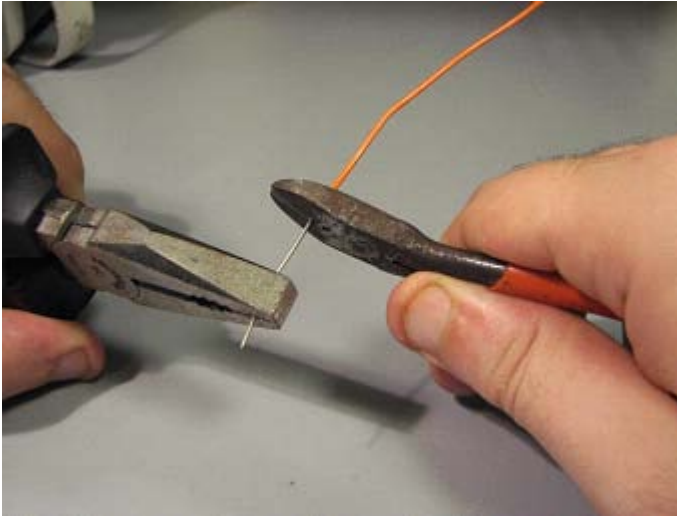


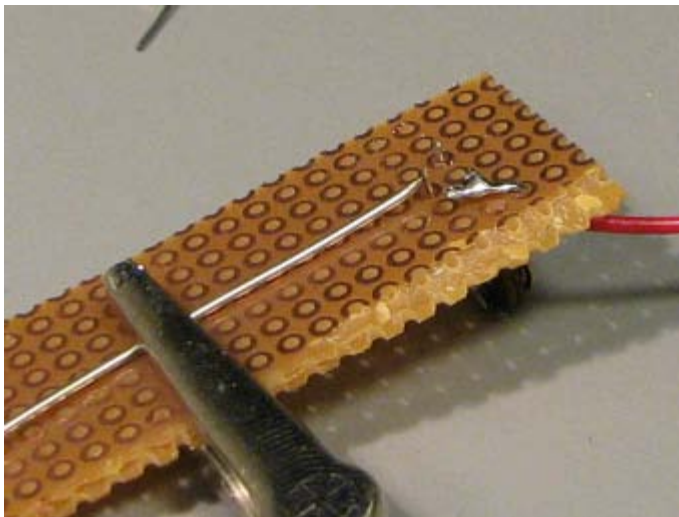
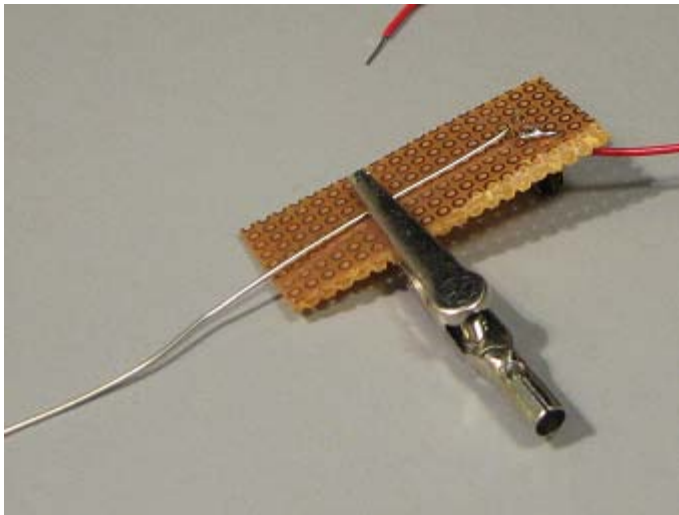
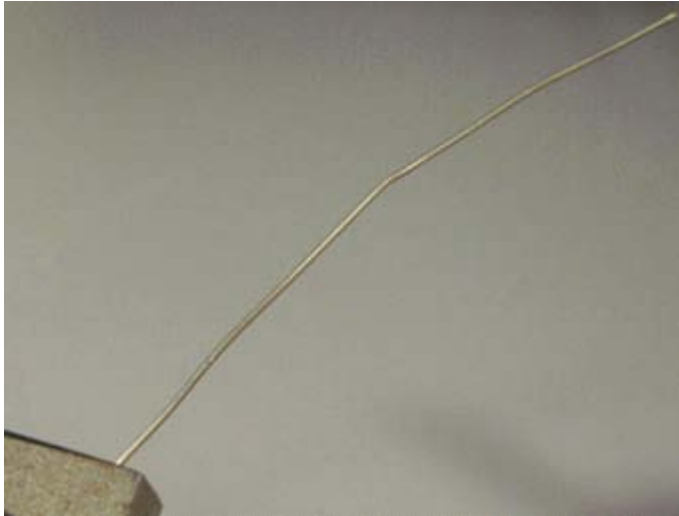


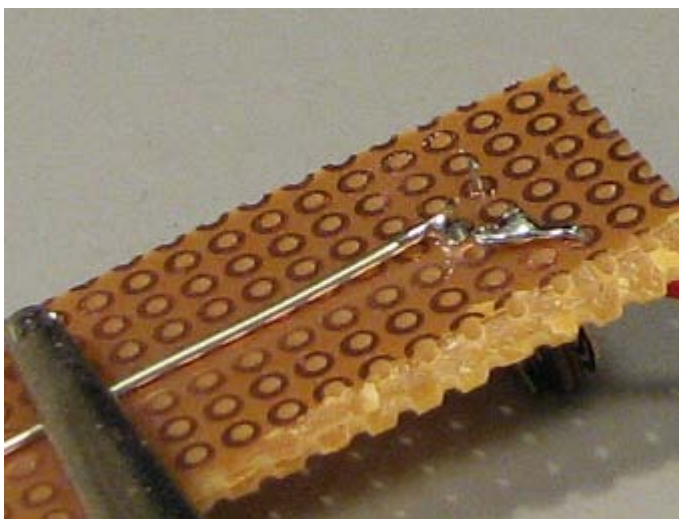
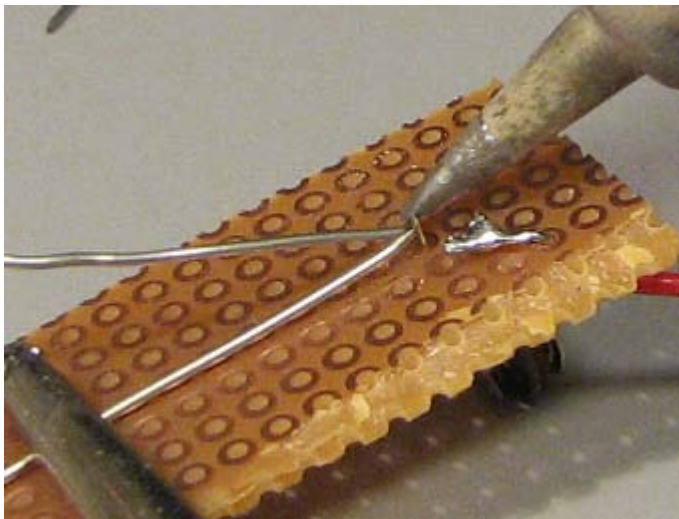
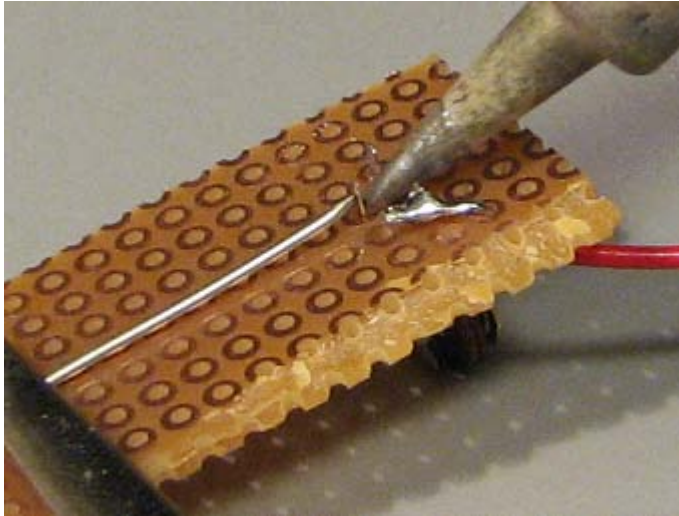


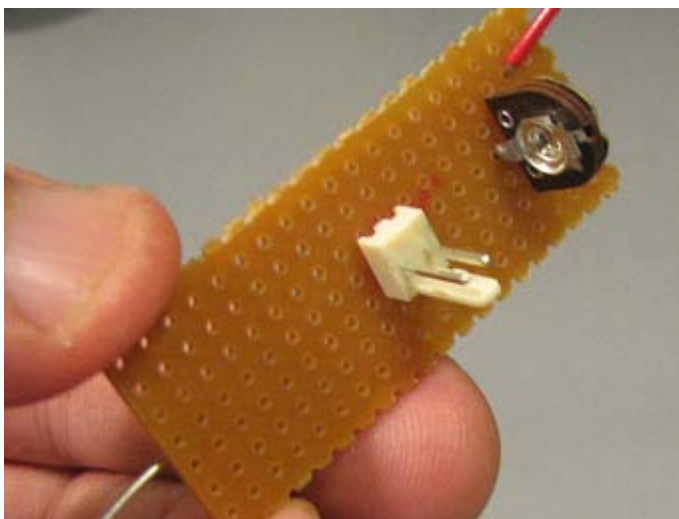
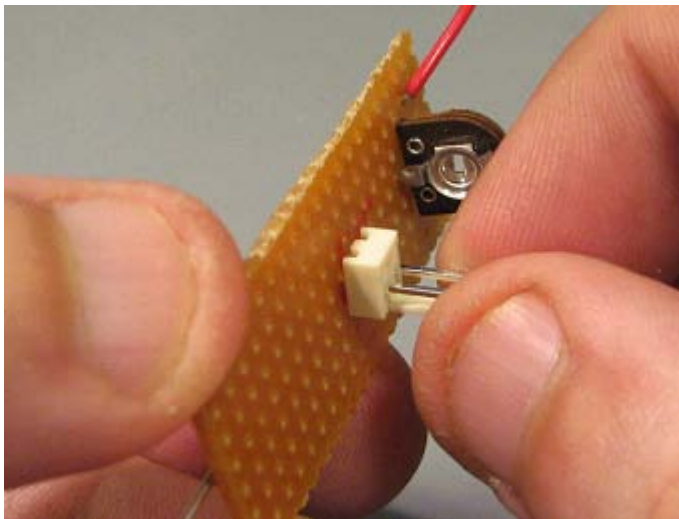
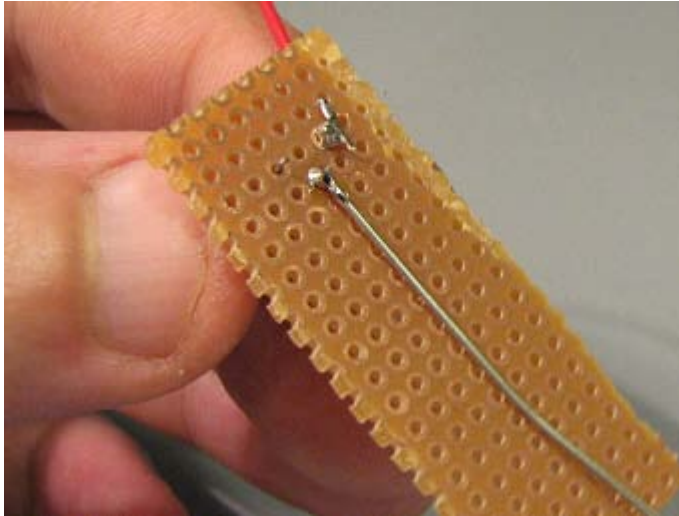


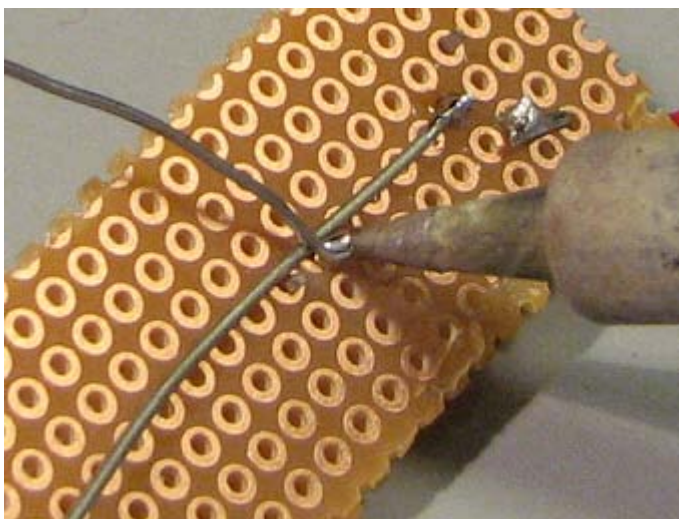
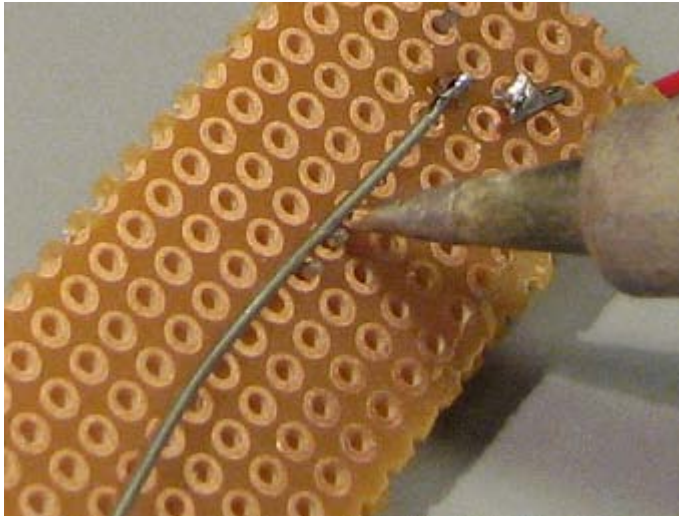
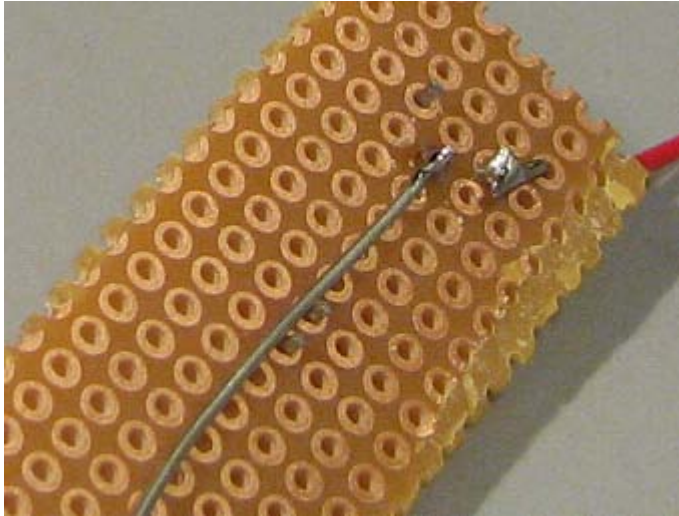


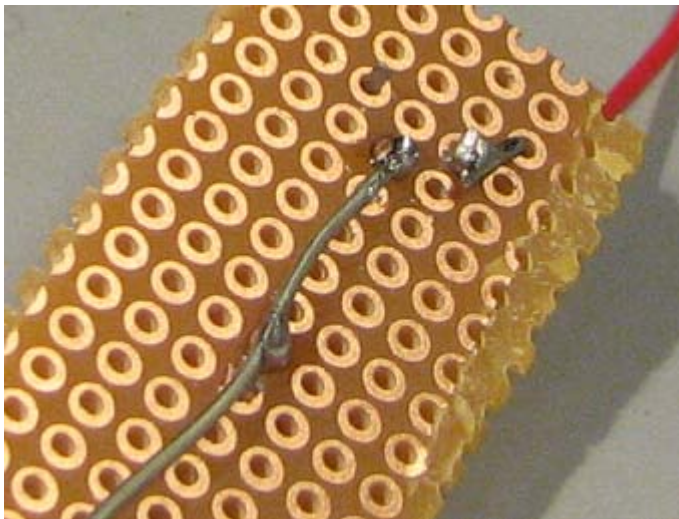
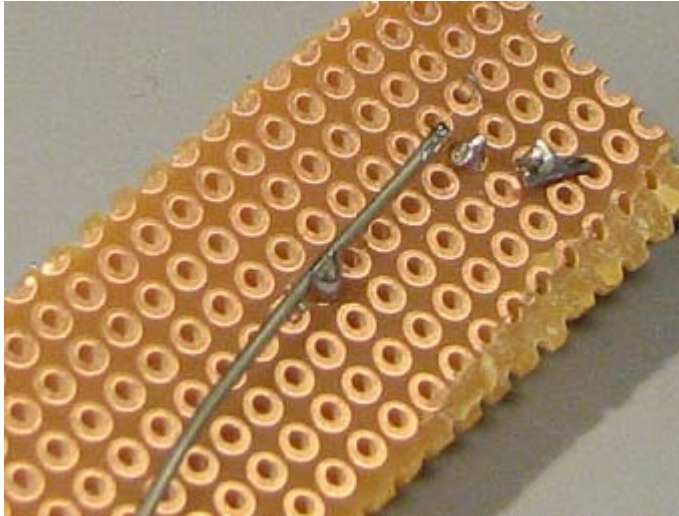


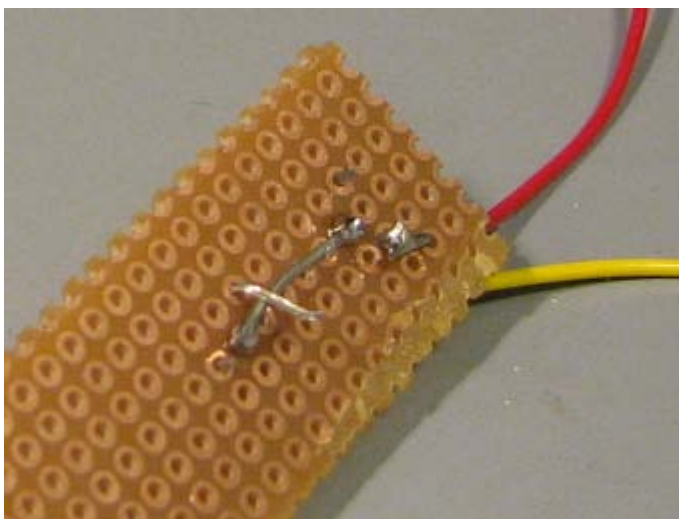
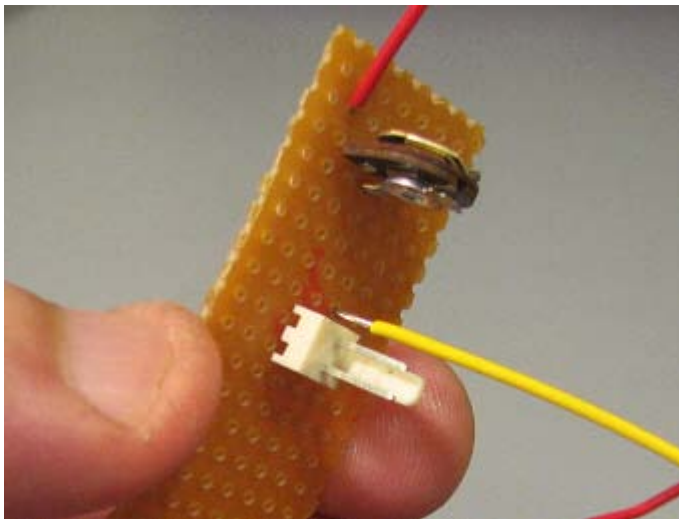
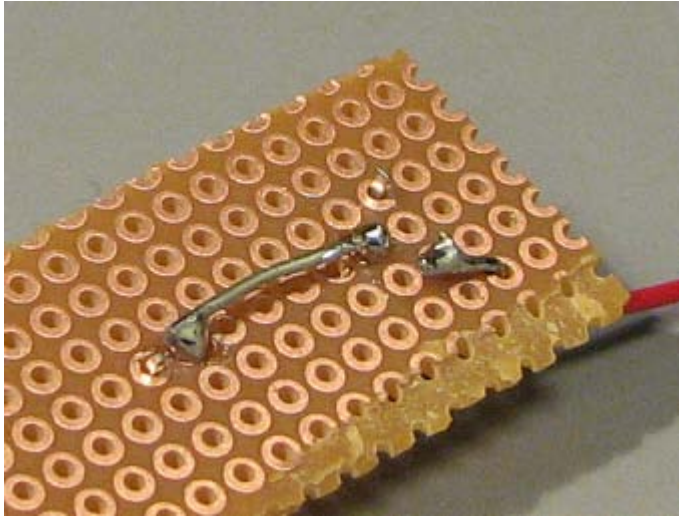


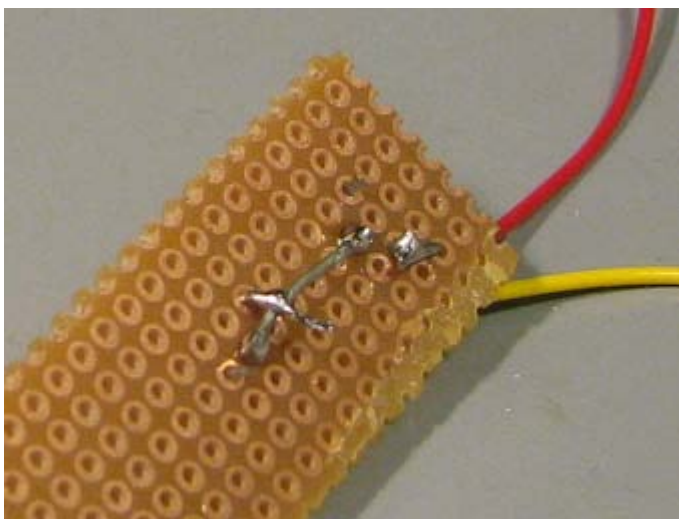
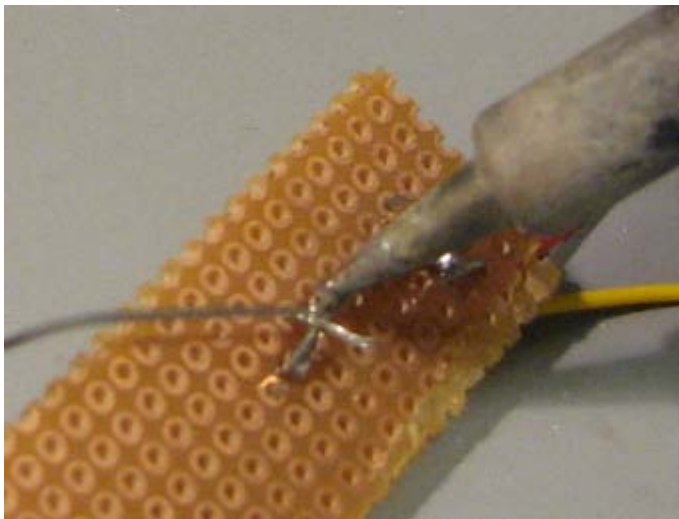
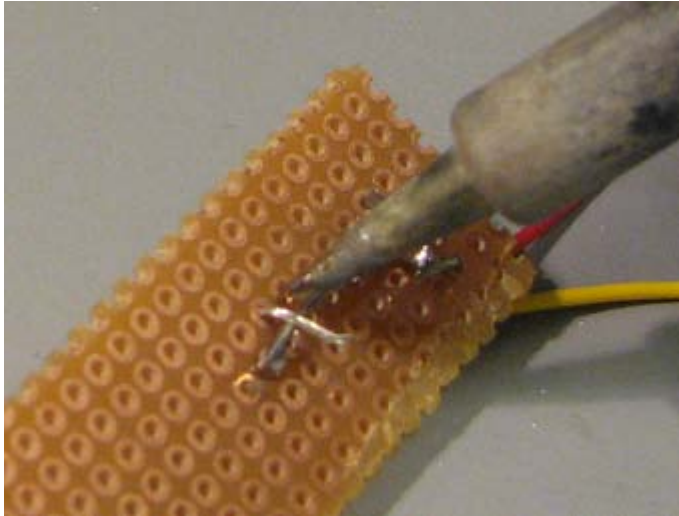


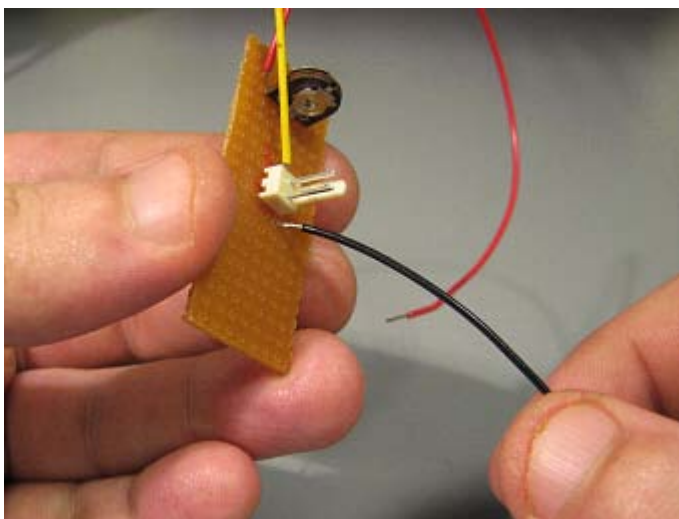
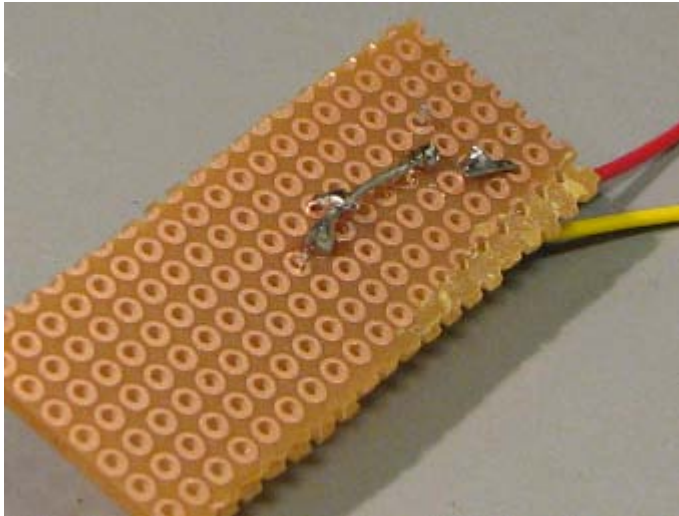
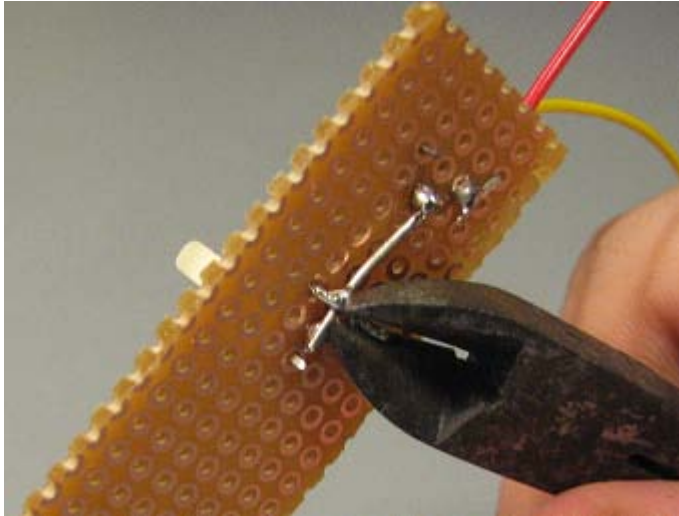


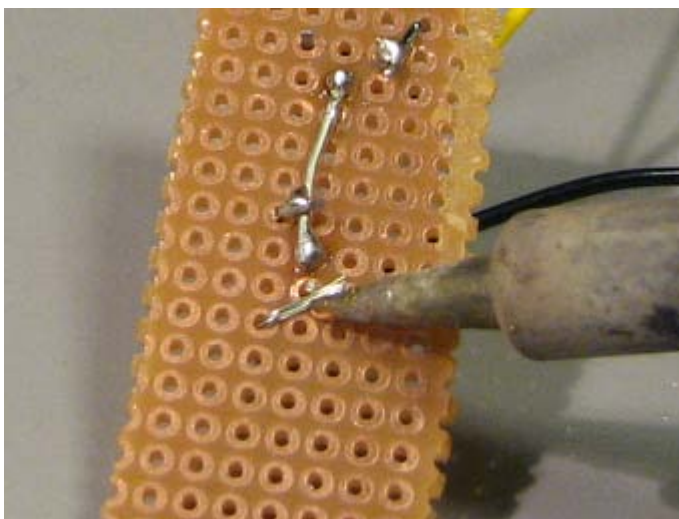
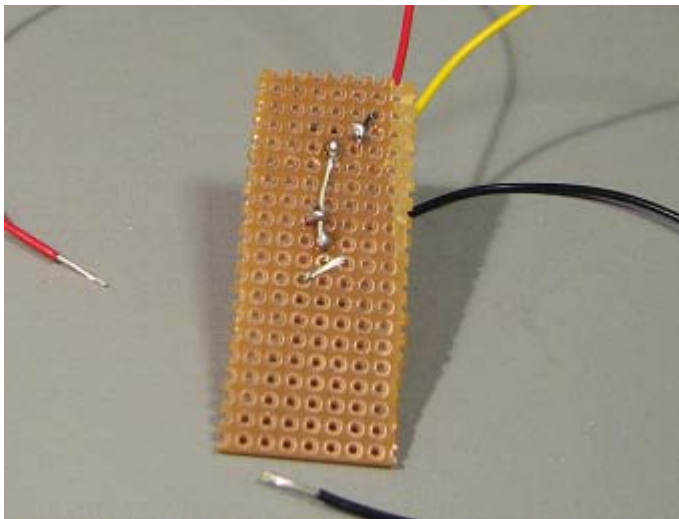
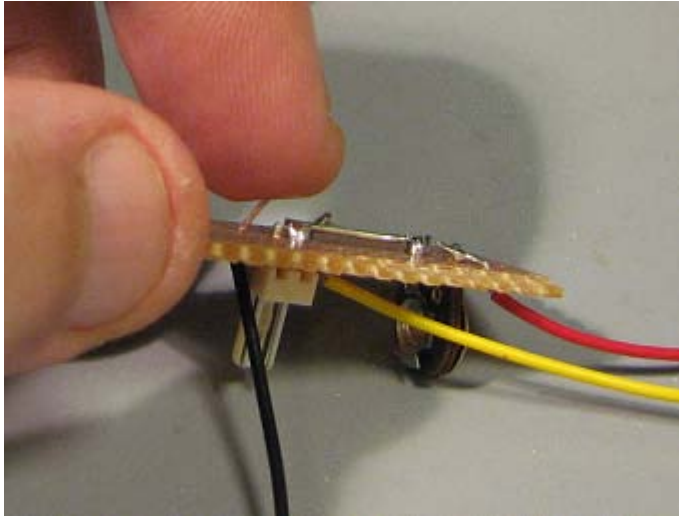


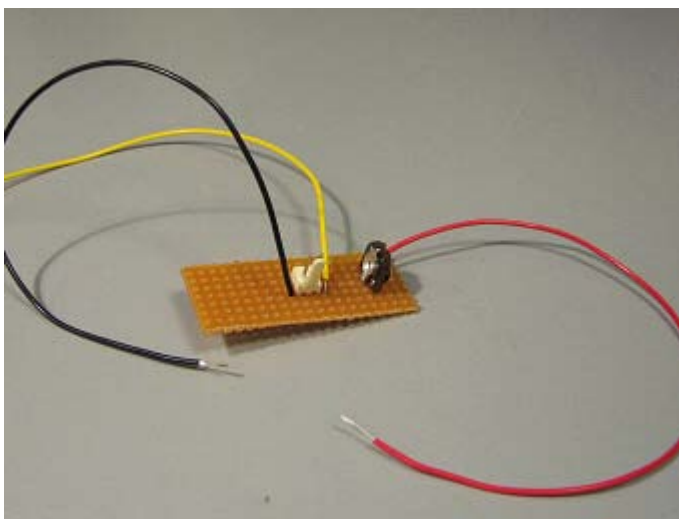
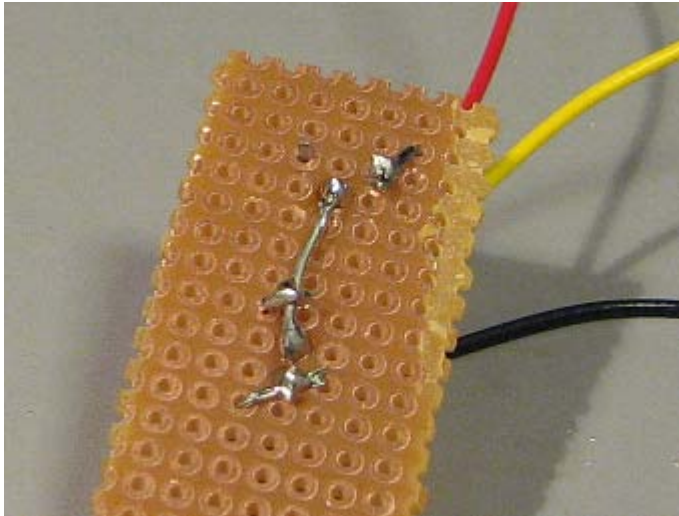
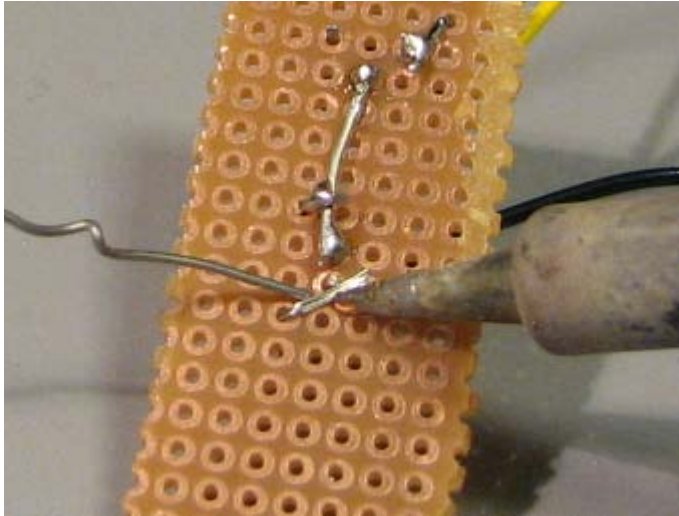


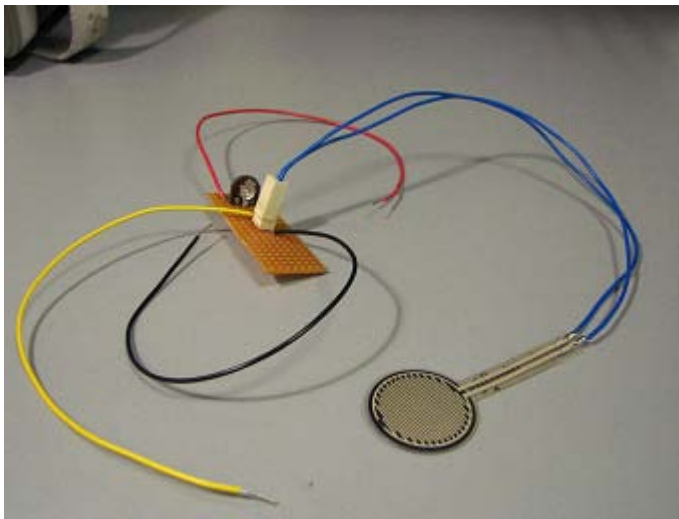
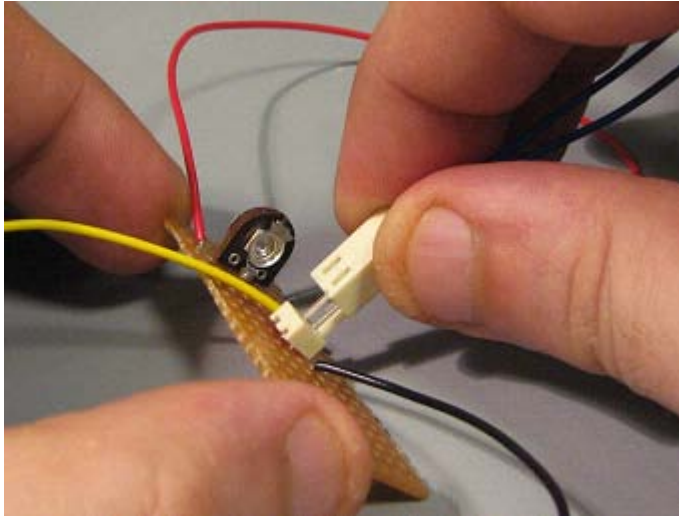












3.1 Powering and measurement

