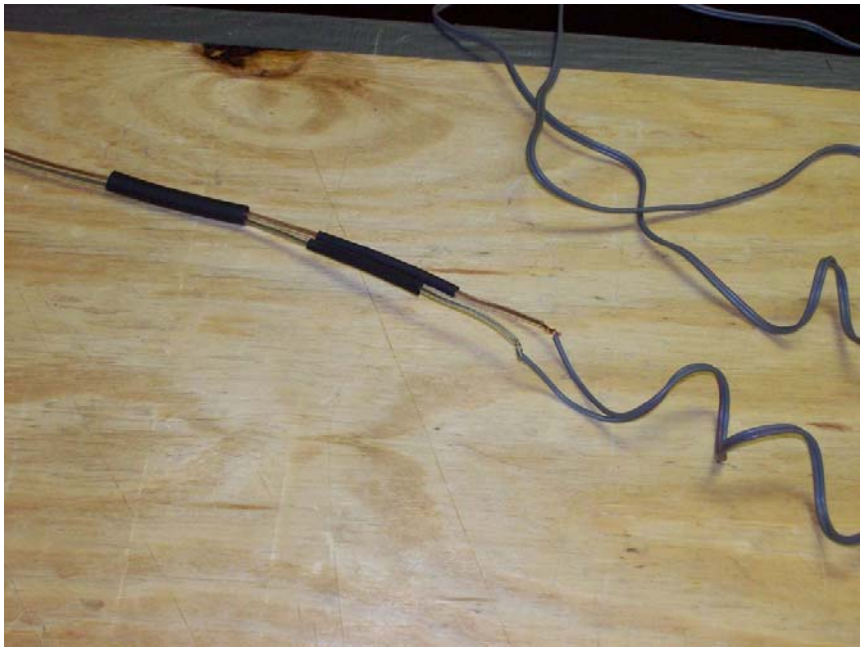
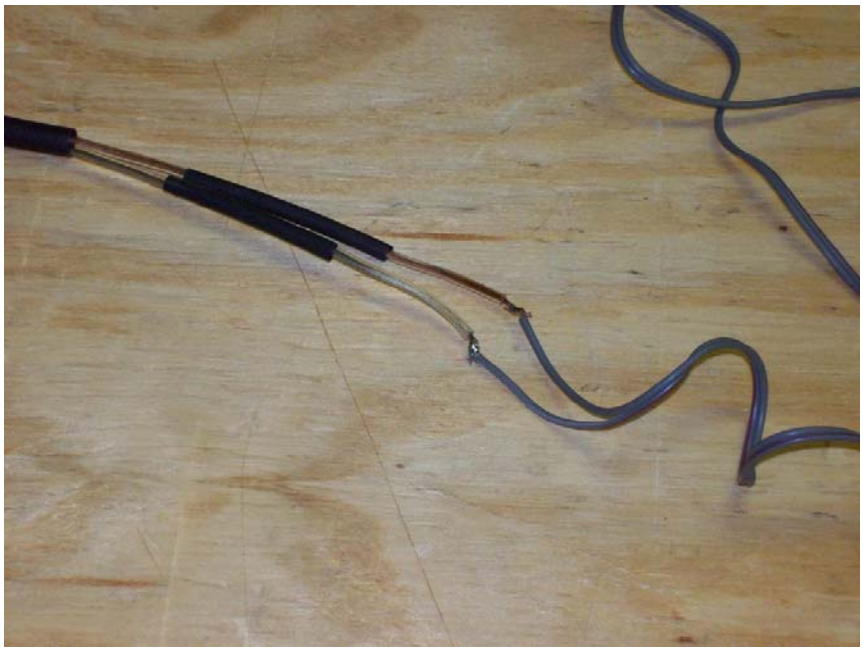
Construction of the ROV Temperature Probe

Seal the end of the temperature probe with glue.

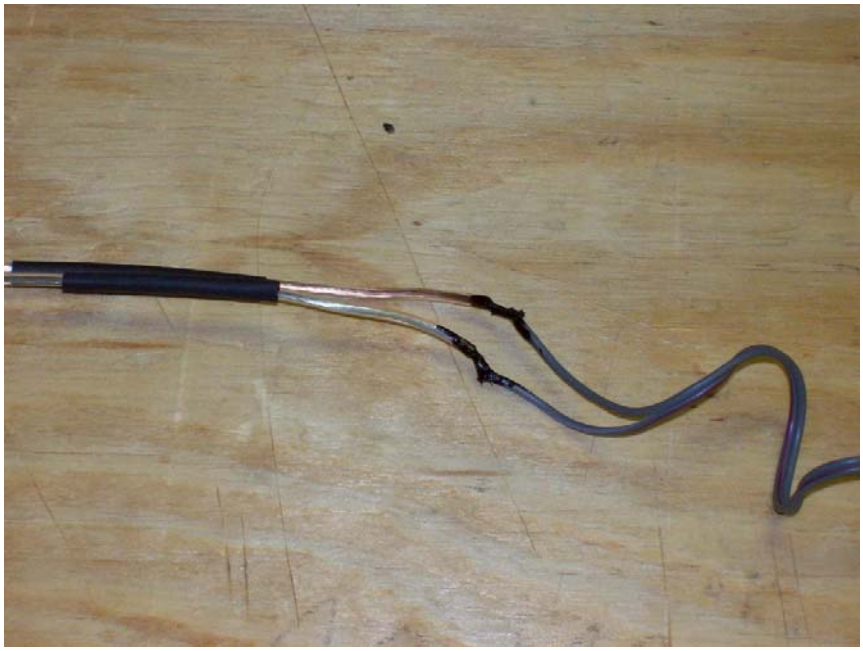
Cover the end of the probe with heat shring tubing.



Connect the grey probe wires to 45 foot speaker wire.

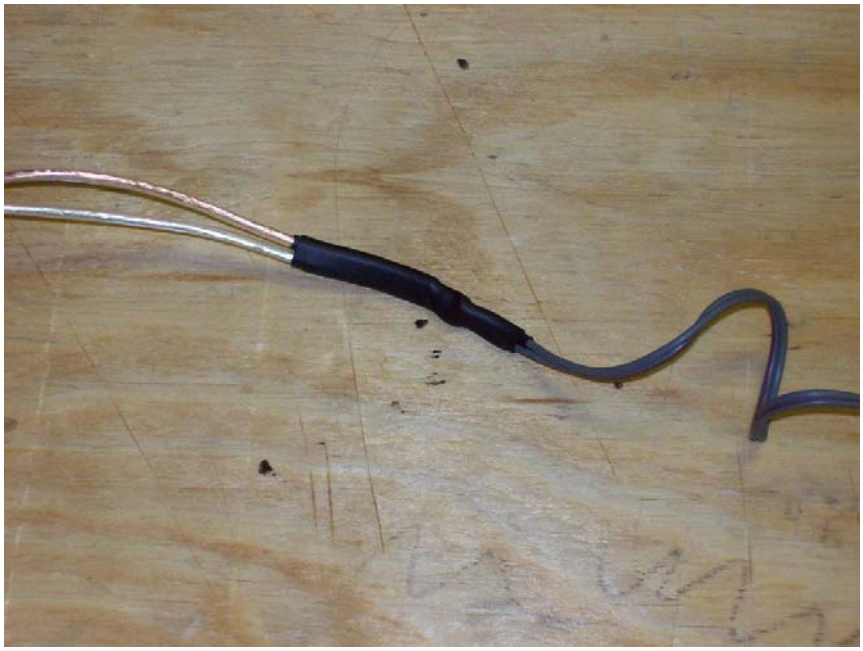


Solder the wires together.

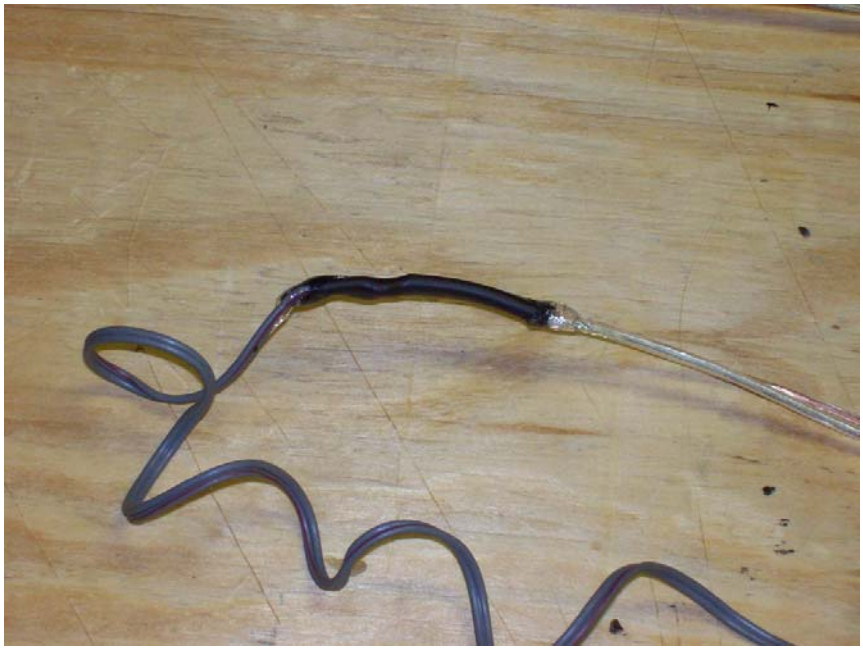


Coat the wires with liquid black tape to waterproof.

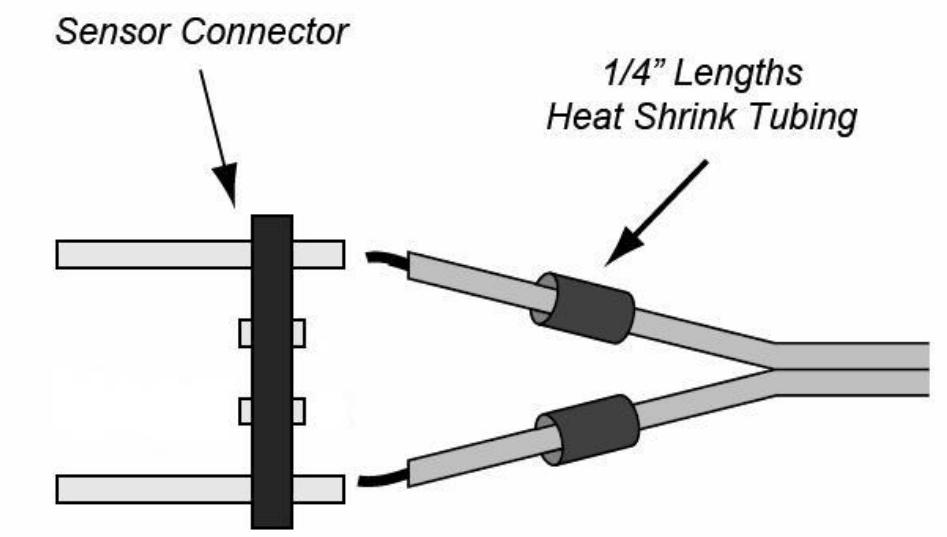
Cover the exposed wires with heat shrink tubing.



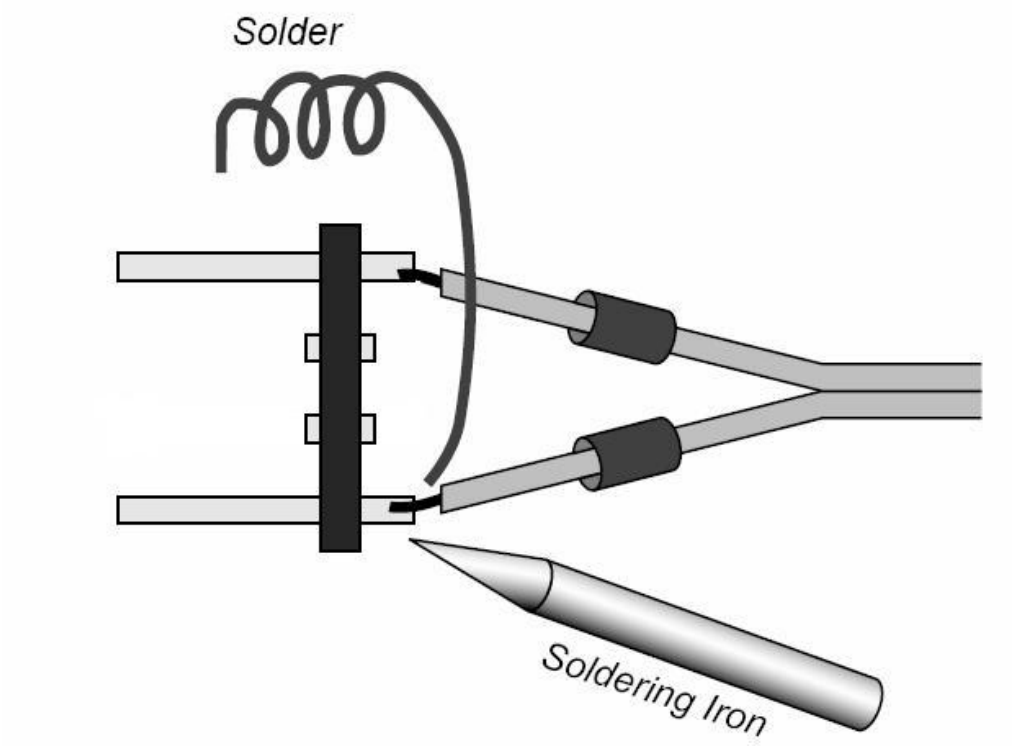
Cover the wire splice with one heat shrink tube.

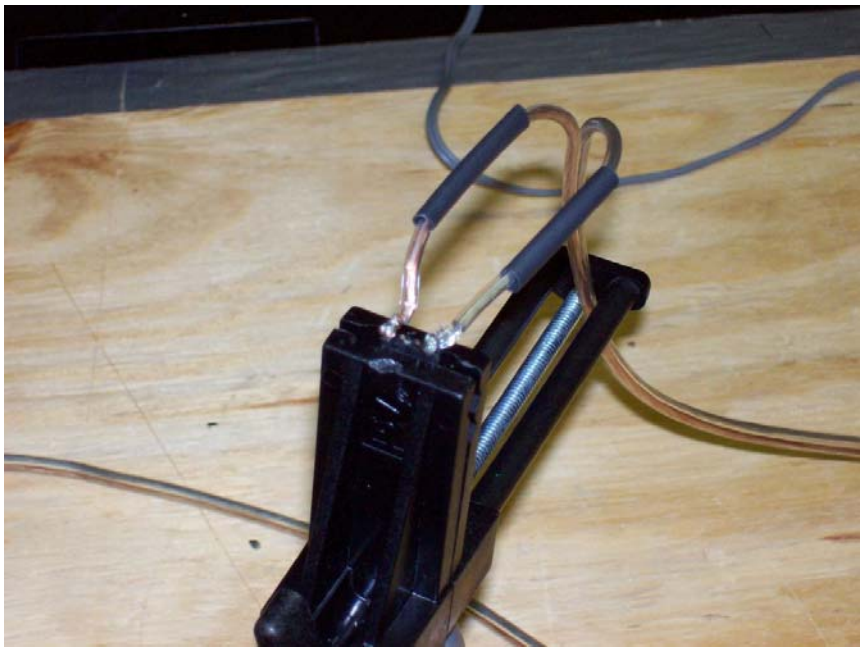


Seal and waterproof the wiring splice with glue.

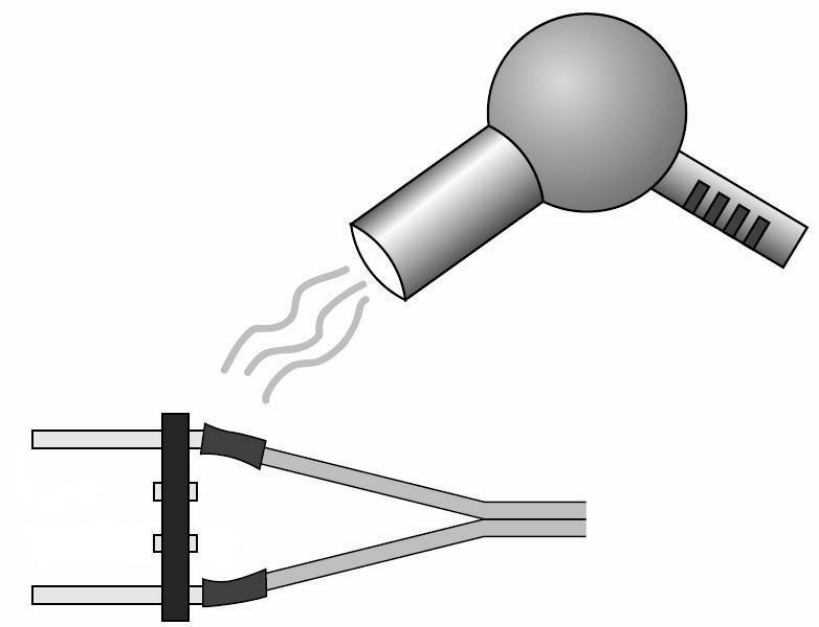


At the other end of the speaker wire connect a 2 pin computer plug.

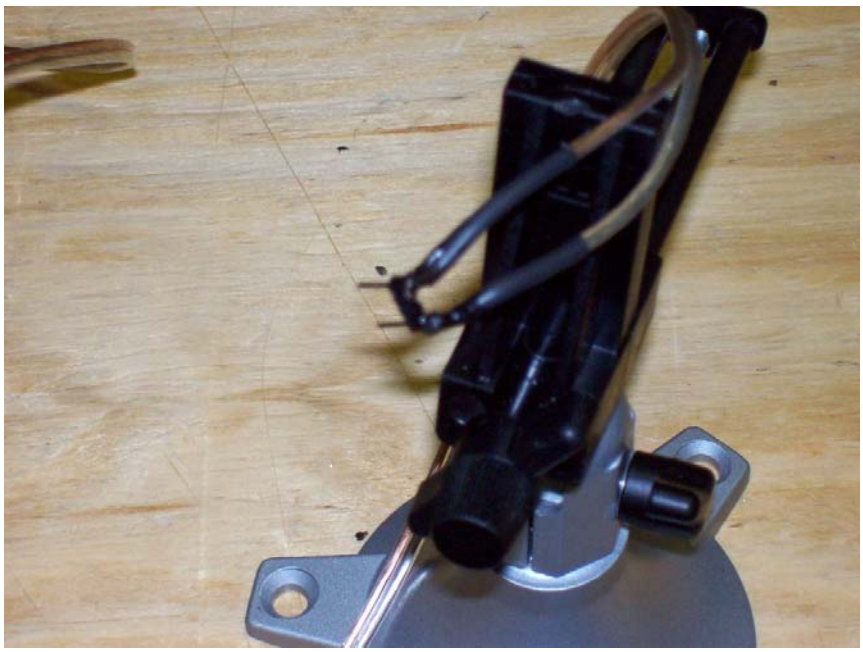




Solder both wires to the plug terminals.

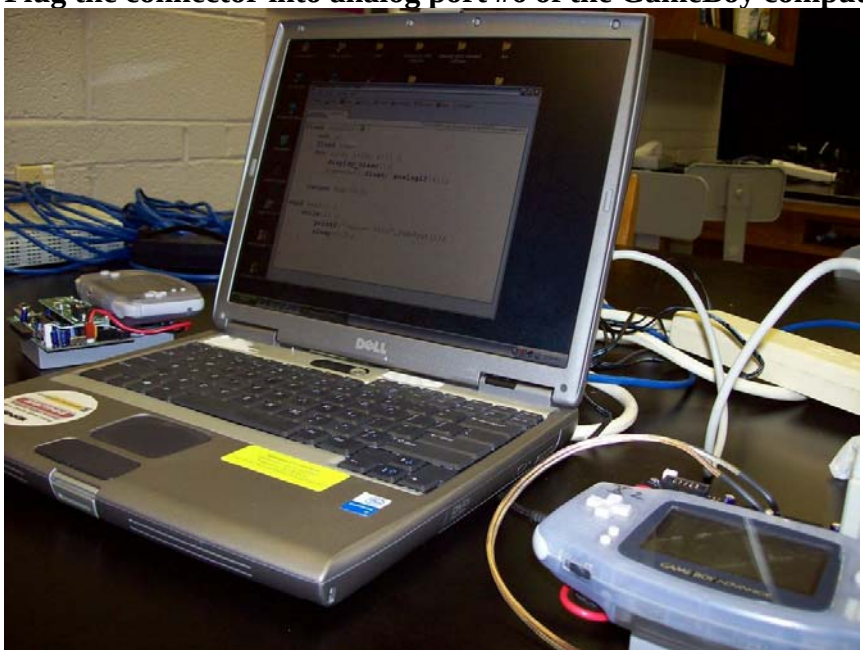


Gently apply heat from heat gun to shrink the tubing over the joints.

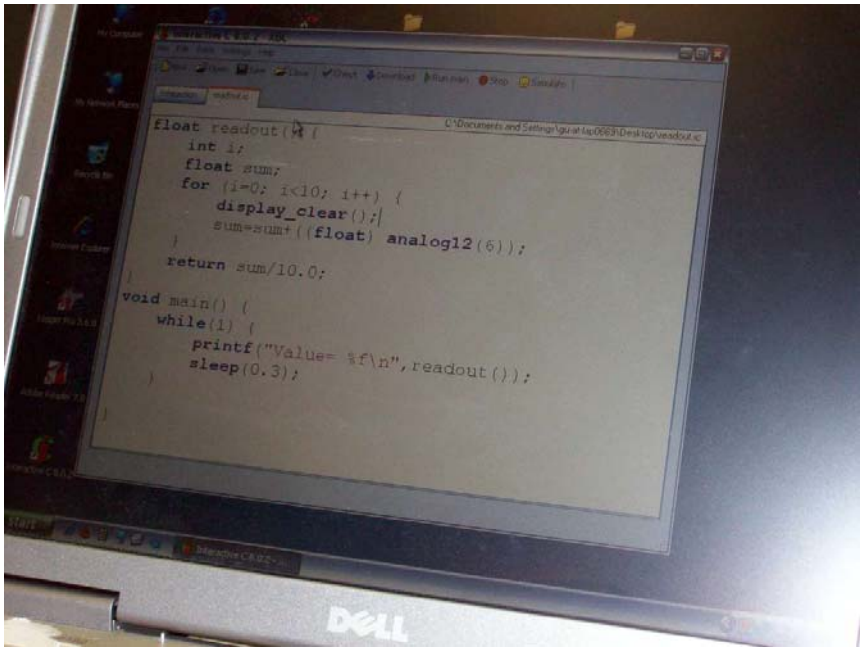


Seal the wires with heat shrink tubing and liquid black tape.

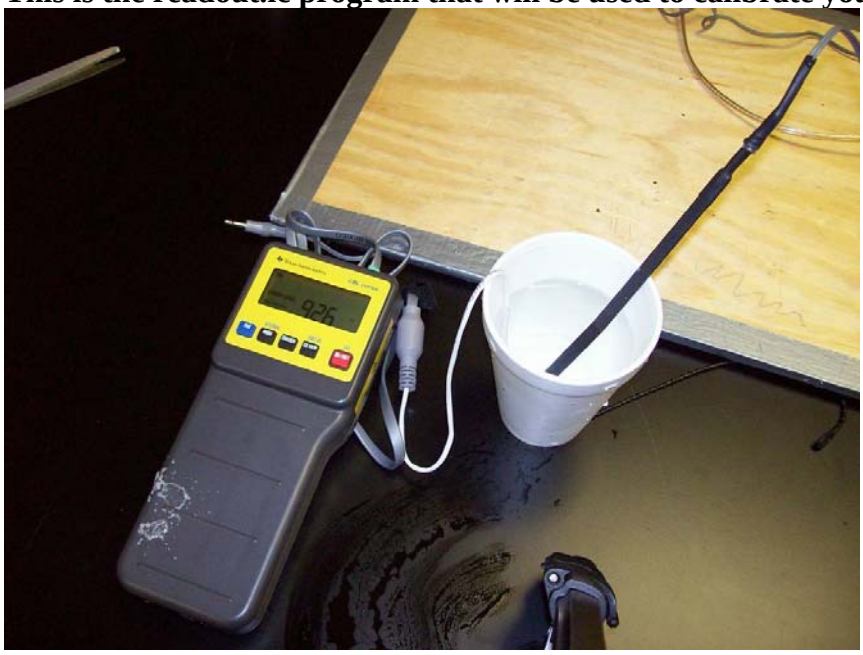
Plug the connector into analog port #6 of the GameBoy computer.



Attach the GameBoy to a laptop and load the readout.ic software into The Interactive C program.



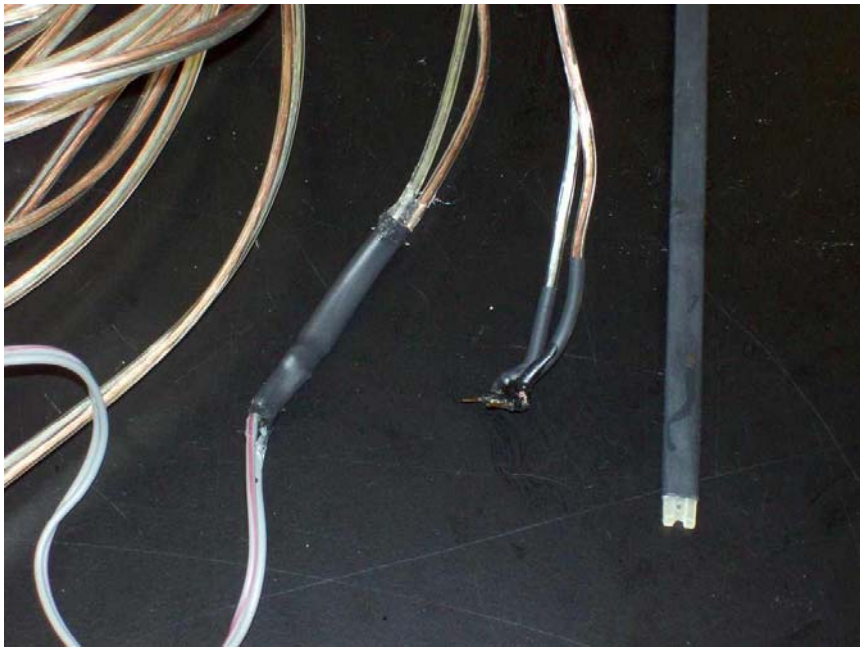
This is the readout.ic program that will be used to calibrate your probe.



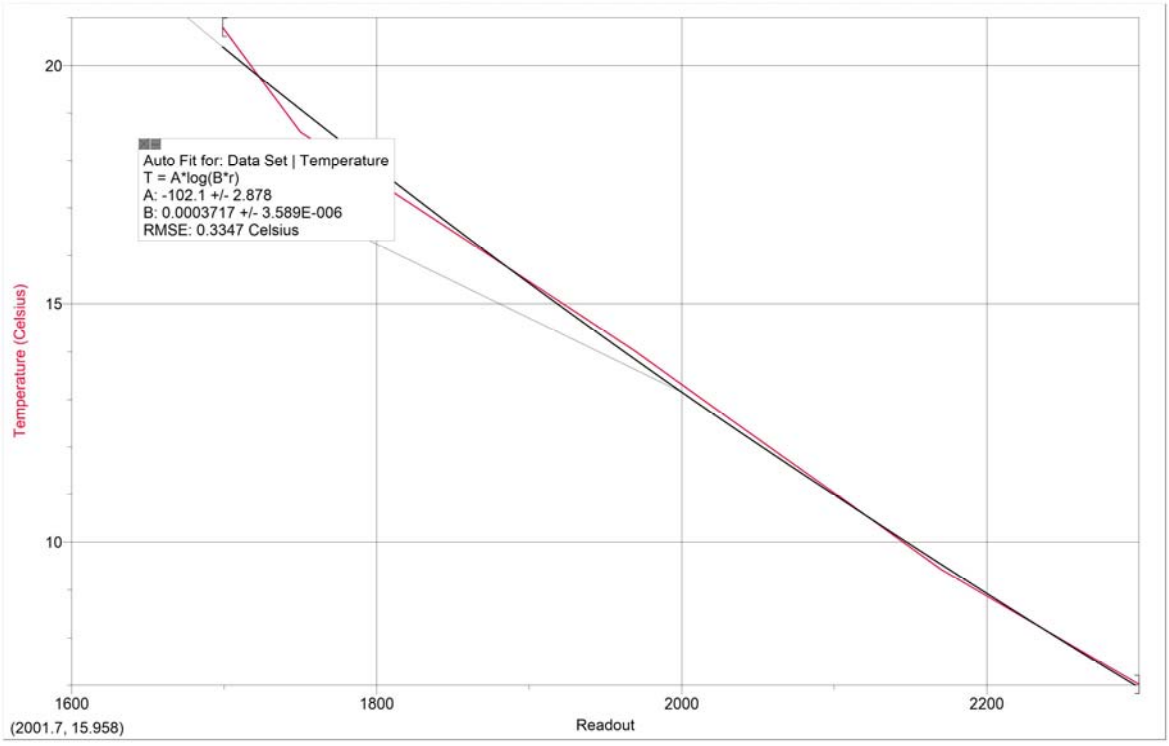
This is the temperature calibration with a digital thermometer and your probe. Start with near freezing water and add amounts of warm tap water to Record different temperatures. Record the readout and temperature for each Water sample.

The two probes should be next to each other during calibration.

This is the calibrated probe.



A closeup of the probe, splice and 2-pin computer connector.



This **is a sample LoggerPro temperature graph done to fit your calibration data.**

For the LoggerPro procedure and readout.ic modifications, follow the video tutorials at:

http://physics.gallaudet.edu/camtasia/temp_cal/temp_cal.html

http://physics.gallaudet.edu/camtasia/temp_prog/temp_prog.html