Waterproof connections Test Plan:

Spec: S4, Test shows Satisfied 100% immersed in water for a week while staying waterproofed.

Supplies:	Simple Preliminary Test:
4 10kΩ Resistors Liquid Electrical Tape Heat Shrink Tube Adhesive Lined Heat Shrink Tube Wire Solder Multimeter Power supply Salt Water Tank	1. Measure Resistors with Multimeter 2. Use V=IR 5V=10kΩ*.5mA (confirm resistances and do exact calculations for current) 3. Solder all resistors to plain wire 4. Coat one resistor setup completely in liquid electrical tape. 5. Put on and shrink heat shrink tubing around one resistor set up 6. Put on and shrink adhesive lined shrink tubing around one resistor setup 7. Leave all setups to cure for 30 minutes 8. Set power supply at 5V (confirm with Multimeter) current limit to 2mA 9. Fill small container with warm water and salt, stir salt completely in. 10. Using wire, ground salt water to power supply 11. Connect resistor wire to power supply on one end, through current measurement of Multimeter, and into ground on power supply. 12. Monitor current on Multimeter with setup outside of salt water 13. Place setup into salt water and watch for change in current, record differences 14. Repeat steps 11-13 for all 4 resistors 15. If current through Multimeter significantly changes when placed into salt water, waterproofing method has not worked 16. Leave all setups in water for one week then repeat step 13 using confirmed voltages again, and monitor for calculated current. If setups past first round of tests and failed this, water has gone inside the setup over the past week, and waterproofing has failed

Results: Results have shown that the tested liquid Electrical tape and heat shrink wrap have passed initial waterproof testing. Test methods will be more controlled the next time to prevent extreme bending of the wires which was shown to be able to contribute to premature failures.