Multimeter Lab: Week 3

Zach Welch, Thomas Buckley, Aidan O'Leary, Lucas McFetridge

Objective:

The objective of this week was to create a guide on how to use our different settings on the multimeter, and debug our multimeter.

Procedure

When we tested out multimeter this week, all parts of it worked, except for our ohmmeter. We did many things to try to fix this problem. We first thought that it was a problem with the rotary switch, and we tried resoldering the cables in different positions, to try to find the problem. We determined that the rotary switch was not the problem. We then noticed that when the battery was connected to the ohmmeter, and the leads were connected, the needle would move in reverse, so we tried switching the battery around. We determined that this was in fact the problem, so we switched the layout of the battery snap in reverse, and our ohmmeter began to function properly.

The last step of the lab was to create an instruction manual for the multimeter, so that a person who is not familiar with the usage of a multimeter, can learn how to properly use it.

Discussion:

We soldered the battery snap into the board backwards, which prevented the ohmmeter from functioning properly. Other than that, there were no other problems.

Conclusion:

If the needle of the meter is moving in reverse, the voltage source is most likely in reverse.