

MATE ROV Building Tutorials (Introductory ROV Building)

Intro to Electricity and Ohms law

for Robotics and Engineering Class

Due: 11/06/14

You can see this assignment and other on our website at:

<http://www.mountainhomecharter.org/rov-classwork.html>

The following videos are designed to be used by teachers, students, mentors and parents to assist with ROV building.

Go to <http://www.marinetech.org/angelfish-videos/>

Please review the following two videos. Try to answer the questions to the best of your ability and understanding. You can submit this assignment online on our website or turn it in at the next class.

Click on Tutorial 1A: Introduction to Electricity (4:04), you will need your parents help to create a free account with MATE to watch the video.

1. Provide a definition for electricity.
2. Explain the difference between AC and DC.
3. Define voltage.
4. Define amperage.

5. Define resistance.
6. Why do we commonly use copper in wires?

Tutorial 1B: Ohm's Law (3:14)

1. Write down Ohm's law.
2. If the voltage increases, what will happen to the amperage?
3. If the resistance increases, what will happen to the amperage?

Extra Credit: Explorer the [Phet Simulator](#) we used in class. See if you can figure out how to measure voltage and amperage. Describe the method for each:

Any comments regarding what you liked, did not like, or ways to improve these videos or questions: