eCYBERMISSION Timeline
(Engineering Design)

Assignment	What to do	What to hand in	Due Date
Select a Topic	Using the Mission Challenges, choose a topic that you and your team would like to investigate.	The topic that your team plans to investigate and why your team chose it.	
Identify a Problem	Choose a problem that faces your community and conforms to the topic your team has chosen.	The problem you have chosen to investigate as well as why solving that problem will help your community and which parts of your community will be directly impacted.	
Research the Problem	Use at least ten reputable sources to research the problem your team has chosen to investigate.	A list of at least ten sources that contain important information about the problem your team is investigating. With this list you should also submit the information you found in these sources in paragraph format.	
Identify the criteria and constraints for your design	Using your research, determine what your design needs to have and what it should (or can't) have.	A written design statement that explains your proposed design idea and includes what is necessary in your design and what should or must be left out. This should be based on your research.	
Plan your prototype	Develop a design plan for your prototype.	Your step-by-step design plan for your prototype. Include all of the materials you will need as well as all safety precautions and any technologies you will use. This must be approved before building your prototype.	
Build a prototype	Build a prototype of your design.	The prototype of your design. This should be a working model of the device that can be used to solve the problem your team is investigating.	
Test the prototype	Use the prototype to see if it can solve the problem.	All of the data collected during the test. Any photos or videos taken during the test. Also, include a written explanation of whether the data supports or refutes your design statement and any sources of error and how they could have affected your results. Include data tables, charts, and/or graphs.	
Construct a Conclusion	Based on your tests on your prototype, write a conclusion that explains why your design will, or will not, work to solve the problem.	A written conclusion that explains how and why your design will or will not solve the problem. Also describe what you would do if you wanted to retest of further test your design.	
Identify the benefit to the community	Explain how your experiments and data help solve your problem and benefit your community and describe next steps for further research/experimentation and how you have or how you could implement your solution in the future.	A written explanation of the benefit to the community of your proposed solution including the next steps your team would take for further research and how you would implement your solution.	