



Great Lakes Field Service Council – STEM Committee
Michigan Crossroads Council

Name:

Nova Boy Scout Technology
Start Your Engines!

Troop:

Date:

This module is designed to help you explore how technology affects your life each day.

1. Choose A or B or C and complete ALL the requirements:

A.B. C. Watch an episode or episodes, read or do a combination of both watching and reading (about three hours total) of technology-related shows/documentaries/resources that involves transportation or transportation technology. Then do the following:

1. Make a list of at least two questions or ideas from each article or show.

2. Discuss two of the questions or ideas with your counselor

2. Choose ONE merit badge from the following list. (Choose one you have not already used for another Nova award.) After completion, discuss with your counselor how the merit badge you earned uses technology. Automotive Maintenance, Aviation, Canoeing, Cycling, Drafting, Electricity, Farm Mechanics, Kayaking, Motorboating, Nuclear Science, Programming, Railroad, Small-Boat Sailing, Space Exploration, Truck Transportation.

3. Do ALL of the following:

A. Using the requirements from the above list of merit badges:

1. Tell your counselor the energy source(s) used in these merit badges.

2. Discuss the pros and cons of each energy source with your counselor.

B. Make a list of sources of energy that may be possible to use in transportation.



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- C. With your counselor:
1. Discuss alternative sources of energy.

2. Discuss the pros and cons of using alternative energy sources.

4. Design and build a working model vehicle (not from a kit).

- A. Make drawings and specifications of your model vehicle before you begin to build.

- B. Include one of the following energy sources to power your vehicle (do not use gasoline or other combustible fuel source): solar power, wind power, or battery power.

- C. Test your model. Then answer the following questions:

1. How well did it perform?

2. Did it move as well as you thought it would?



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3. Did you encounter problems? How can these problems be corrected?

D. Discuss with your counselor:

1. Any difficulties you encountered in designing and building your model

2. Why you chose a particular energy source

3. Whether your model met your specifications

4. How you would modify your design to make it better

5. Discuss with your counselor how technology affects your everyday life.
