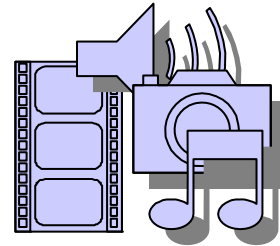


**EARTH DAY<sup>®</sup>**

**Ottawa**



**Digital Video Production**

***Earth Day Ottawa proudly presents***

# **Solar Sprint**

# **Digital Video**

# **Competition**

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## Thank you to Sponsors and Volunteers

Thank you to all of our sponsors and volunteers. Without them, this program would not be possible.

## Use of this Manual

This Manual should be used in conjunction with the main Solar Sprint Manual and the Earth Day Ottawa web site.

[www.earthdayottawa.ca](http://www.earthdayottawa.ca)

## What Is a Solar Sprint Competition?

The Solar Sprint competition is:

1. A race among students using "home-made" solar powered model-size cars.
2. A competition among students to produce other components (such as a website and/or a PowerPoint Presentation and/or a digital video) as determined by the organizers.

These two main components make up the Solar Sprint competition. The actual extra components required for the competition and details of the competition can be found in the main Solar Sprint manual and in the registration information.

## Why a Solar Sprint Competition?

The objectives of the Solar Sprint competition are:

- i) to design and build a vehicle that will complete a race in the shortest possible time using the available power.
- ii) to engage students in researching science principles relating to solar (renewable) energy so that they might gain an understanding and appreciation of renewable energy sources.
- iii) to help students advance their computer skills by providing a useful avenue to generate a website, PowerPoint Presentation, digital video and/or other computer related activity that is educational in the doing and educational in the content.
- iv) to provide students with an outlet to show and enhance their artistic abilities by providing an interesting project which requires graphics for a website or digital video or presentation and to provide a direct link to science and technology oriented tasks in the hope that they might gain an appreciation for science and technology.
- v) to share with the wider community the potential for science and technology to open up new possibilities for the future for the benefit of the environment.

In short, the answer is . . . for

***EDUCATION and the ENVIRONMENT***

## Who Can Compete?

Only students in **grades 6, 7 and 8** are allowed to compete and they compete with "home-made" solar powered model size cars and with other "vehicles" such as Websites, PowerPoint Presentations and digital video productions.

Home school students in the same age group and similar education level are also allowed to compete.

## Solar Sprint School Digital Video Guidelines

**Digital Videos are to be submitted at least nine (9) days before race day.**

The digital videos must be submitted by 5:00 pm (17:00 hrs) on or before the Thursday that is **nine (9) days before race day.** You will be informed of the exact date in a separate notice. Late submissions will be viewed at the judges' discretion.

The plan is to provide a website where the digital videos can be submitted and stored. The judges will use this site to view the digital videos. Details about the digital video submission process will be given in a separate notice.

### **Description:**

The purposes of the Solar Sprint Digital Video competition are to share the knowledge gained about building solar powered cars with others, to help students learn about alternate energies (including solar) and the environment, to engage students in using the Internet, to help students learn more about digital video production and to help students learn more about computers and their applications.

The digital video competition can also be used to provide students with an outlet to express their **artistic and creative** abilities in producing various graphics and animations if desired for the digital video. This is the melding of art and science.

The digital video part of the competition provides an excellent opportunity for students not wanting to design and build a car and not wanting to be on a race team but want to become involved in the event.

There will be prizes given for the top three digital videos as determined by the judges.

### **Digital Video Content Guidelines:**

The items below are some of the ideas that can be used as a guideline for the content or messages to be displayed in the digital video. Other related information is also acceptable.

#### **Student Information; Car Design, Build and Test:**

- School Team members (using fictional names) and photos of the students would be nice.
- Car Facts: Close-up photos and videos of the cars produced. Is someone describing them?
- Knowledge gained about building solar powered cars
- Design process comments
- Document (videos and photos) the progress of the teams at various stages of the design, building and testing of the cars

- Animation can be used to help explain some of the problems.
- Lessons learned
- Interviews with students (watch out for background noise)
- Is the video bilingual?
- Is the background music appropriate
- Are the credits appropriate? Too slow, too fast

**Solar Energy, Environmental Information:**

- What have you learned about solar energy?
- In which situations is solar power likely to be most practical?
- Advantages and disadvantages of solar power
- Applications or uses of solar powered systems and its place in society
- How solar energy might play a role in reducing our use of non-renewable resources
- How solar energy might play a role in reducing pollution
- Other alternative energy sources (non-renewable and renewable comparisons)
- Environmental impact of renewable and non-renewable energy sources
- Differences between solar electric and solar thermal systems
- Energy Conservation; things we can do to save energy

Generally, embedded videos in websites are viewed as part of the website. Any video that is part of a website may also be submitted as a video submission and judged with the other videos but a copy of it must be submitted in the digital video submission area.

The video should be able to be viewed on a computer using industry standard video player software applications. It makes it easier for the judges if the video can be played on a computer. It also makes it easier for the judges if the video is one file but it is acceptable to have multiple files. The organizers will attempt to provide a server where the video can be uploaded and viewed.

The Evaluation Guidelines and Score Sheets for the Videos are on the **next two pages**.

## Solar Sprint School Video Evaluation Guidelines and Score Sheet

School Name: \_\_\_\_\_

These guidelines are to help the judges rate the digital videos in the competition.

Students can use these guidelines to help them determine what content should be in their videos and how they would like their videos to appear. Ideas for video content are also presented on the previous 2 pages.

### Digital Video Content Evaluation (60 points maximum)

1. **School Information Introduction** (4 points maximum):
  - School Name
  - Introduction information
2. **School Team Members** (4 points maximum):
  - Fictional team member names and roles they played. Photos and captions may enhance the video.
3. **Design Process** (12 points maximum):
  - Describe the design and build team's design process and document the progress, including ideas that were considered and rejected and why. Videos of discussions may be interesting.
  - Photos of design drawings and paper models if any
4. **Photos and Videos of the Car(s)** (4 points maximum):
  - Still photos of the car(s) at various stages of development;
  - Action video of the car(s) being built may add to the overall video.
5. **Car Design** (4 points maximum):
  - Car Facts: Photo(s) of car(s), dimensions of car(s), weight(s) of car(s)
  - What can engineers do to make vehicles more efficient so they require less energy?
6. **Lessons Learned** (4 points maximum):
  - What important lessons did you learn during this activity? These could be things about the car, about working on a team, or something else you found important and you would like to share.
7. **Message and Content** (14 points maximum):
  - How well is the message conveyed? Does the Video emphasize the some of the themes given above in the School Video content guidelines, (Car design, build; test and Solar energy, energy conservation, applications, etc);

8. **Accuracy** (14 points maximum):
- Is the information presented accurate?

**Video Content Points Summary \_\_\_\_\_**

60 points maximum

**Digital Video Design Evaluation (60 points maximum)**

1. **Originality** (12 points maximum):
- Does the video have a unique and exciting composition that catches the eye and draws the viewer in to watch and learn more?
2. **Organization and Presentation** (24 points maximum):
- Is the information grouped in an appropriate manner?
  - Is the pace of the video acceptable?
  - Is the flow from one segment to another appropriate?
  - Is there good use of colour, graphics, stills and action shots?
  - Is the information presented well and easy to understand?
  - Is there appropriate use of labels for still photos and graphics?
  - Is there appropriate use of animation?
  - Do the opening and closing credits, if any, seem appropriate?
  - Are the opening and closing credits, titles, date of production, labels, other text, etc, if any, clear and easy to read?
3. **Language(s), Sounds and Pictures** (16 Points maximum): \* See **Language** note below.
- Is the sound appropriate for the pictures?
  - Is the background sound appropriate for the credits (if credits are used)?
  - If language is used in the video, is the video fully or partially bilingual?
4. **Quality** (8 Points maximum):
- Is the picture quality acceptable? Is the sound quality acceptable?

\* **Language:** Videos can be presented in English, French, both English and French (Bilingual) or neither as done in some animations in which case sounds are used to convey meaning.

**Video Design Points Summary \_\_\_\_\_**

60 points maximum

**Overall (Content + Design) Video Points Summary \_\_\_\_\_**

Total 120 points maximum