



# **“Windmill” Competition**

## **2021 Rules and Regulations**

March 6th, 2021

[speedcouncil.org/e-expo](http://speedcouncil.org/e-expo)

Virtually

Elementary School Division: K - 5th

Middle School Division: 6th - 8th

High School Division: 9th - 12th

## **Contact Information:**

### **Keeley Slade**

Engineering Exposition Coordinator

SSSC Executive Vice President

[evp@speedcouncil.org](mailto:evp@speedcouncil.org)

### **Luke Malone**

SSSC President

[president@speedcouncil.org](mailto:president@speedcouncil.org)

## **TO PARTICIPATE IN THE WINDMILL DESIGN COMPETITION:**

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1. Start a team (or participate individually)
2. Register for the Windmill Design Competition
  - Go to speedcouncil.org
  - Hover over the “E-Days” tab to see the drop down
  - Click on the “E-Expo” tab
  - Find the registration link/button
  - Complete the google form for a “K-12 attendee”
  - Complete the registration for your team, noting the amount of people participating per submission, the primary contact for each submission, and the name of the submission.
3. Design and build a windmill
  - The objective for this year’s competition is to make a windmill that is made using at least four different **components/parts**.
    - Examples of parts can include but are not limited to: foundation, tower, turbine, blade, etc.
      - The **foundation** is the base the windmill structure sits on.
      - The **tower** is the rod or pole that connects the foundation to the turbine.
      - The **turbine** is what makes the windmill able to move and connects the blades to the tower.

- The **blades** are connected to the turbine and are used to catch the wind, which generates energy.
- Here is a reference image of what an everyday windmill looks like:



- The more components or creative ideas incorporated, the more points your design can get! The effectiveness of each component will be judged, so make sure each part functions well and contributes to the overall windmill.
- Participants can have more than four components, but make sure each one functions correctly.

#### 4. Compete!

○ E-Expo will be held virtually on **March 6th, 2020, with more information being on the website, [speedcouncil.org/e-expo](http://speedcouncil.org/e-expo)**

○ Participants are asked to submit videos of their windmill design, going through a complete cycle. Please point out each of the components used, and briefly explain its function in the overall windmill. **The deadline to submit videos is March 3rd, by 11:59pm.** There will be a form on the website available for video submissions closer to E-Expo. If your video is ready to submit after the deadline, please email [evp@speedcouncil.org](mailto:evp@speedcouncil.org).

## COMPETITION RULES

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Specification	Value
Objective	Participants can be creative in their objective, with special consideration given to those with a unique design
Group size	1-5 students (in same age group)
Minimum number of components	4
Maximum machine volume	3' x 3' x 3'
Video Submission Criteria	Show your windmill working and briefly explaining each part of the design
Maximum time video time	12 min

## JUDGING CRITERIA

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Video submissions of the windmill designs are due at **11:59pm on Wednesday, March 3rd**. All judging will be completed prior to the competition on March 6th, 2020. Presentation of awards will be given after the keynote speech to top students in each division. Students must be present at E-Expo on March 6th to win their award.

