WRITE IT CAD IT

1. **DESCRIPTION:** One participant will write a description of an object and how to build it. The other participant will attempt to construct the object in a computer-aided design (CAD) software from this description.

   A TEAM OF: 2   **APPROXIMATE TIME:** 50 minutes

2. **EVENT PARAMETERS:**
   a. Only the text-editing software used to write the description and the CAD software are allowed. Tournament officials will determine if the softwares will be provided by the team or the Event Supervisor. No materials or resources are allowed.
   b. Tournament officials must announce the specific CAD software used at the tournament at least 1 month in advance.

3. **THE COMPETITION:**
   a. One participant (the writer) from each team is shown images (e.g. screenshots) of an object from different angles. Event Supervisors must provide image/screenshots from sufficient angles for the team to reconstruct the object. The object and images are the same for all teams, and the object is built in a CAD software.
   b. The writer has twenty-five (25) minutes to type a description of the object and how to build it. There will be no advantage to finishing early.
   c. Drawings and diagrams of the model or subsections of the model are not allowed. Numerals, words and single letters that fit within the context of the written description are allowed. The participant may use abbreviations and do not have to define the abbreviation. Editing, punctuation, underlining, italicizing, bolding, or scientific symbols that fit within the context of the written description are allowed.
   d. The writer will send their description as a TXT, DOC/DOCX or PDF file to the Event Supervisor.
   e. The Event Supervisor will send the description by the writer and a CAD file with the various pieces to the second team member who will take the description and attempt to recreate (build) the original object in twenty (20) minutes. The CAD file will have all the pieces required to recreate the original object and no additional pieces. These pieces will have been moved and rotated. All teams will receive the same CAD file.
   f. The Event Supervisor will provide instructions for how the builder should submit their completed CAD file.

4. **SCORING:**
   a. The team that builds the object nearest to the original and has a written description with no drawings or diagrams will be declared the winner.
   b. Each individual piece will receive points as applicable for: proper size, color, location, orientation, and/or connection.
   c. Pieces that are connected correctly beyond an incorrect connection will be counted in the score. No penalty will be assessed for parts that were not used.
   d. Time for the construction phase will be used as a tiebreaker. This time is recorded as the duration between when the Event Supervisor sends the builder the CAD file with description and when the Event Supervisor receives the submitted CAD file from the builder.

Recommended Resources: The Science Olympiad Store (store.soinc.org) carries the Problem Solving/ Technology CD; other resources including a comparison of possible CAD programs for this event are on the Write It Do It event page at soinc.org.