

## Game On C

**National SO Resources:** <https://www.soinc.org/game-c>

**Event Objective:** Teams participate create a working, complete video game using the computer program Scratch 2.

**Equipment Needs:** Computers with either Scratch 2 downloaded onto the desktop, or computers with internet access to use the program online (please provide competing teams with the specifications of what you are using ASAP).

- Be sure to clearly outline the saving procedure so students know before the event starts how and where to save their final game.
- Saving game - ways to save
  - Desktop
  - Flash drive
  - On-line repository
  - Network drive folder
  - Any other site specific way that fits your needs
    - Ex. “When you have completed your game, please save it to the Desktop as “Team #, School.” You may want to do this with a few minutes left so you can check that it saved correctly.” (It also helps to have this information written somewhere where all students can see).
- Scorers should also have a pair of headphones to listen for game sounds without interrupting the event.
- Supervisors also need to provide scratch paper to each team.
- A stopwatch or timer is needed as well.

**Number of Volunteers Needed:** A minimum of two (more is preferred). One can walk around, troubleshoot, and announce times while the other is scoring games using the provided rubric.

- If you have more than one scorer, make sure you discuss the rubric ahead of time. There is a LOT to the rubric, and a lot of little details in there that it would be good to think through together before you start scoring games. It is recommended on the [soinc.org](https://www.soinc.org) website to have three scorers and to average them to get your final rankings, time permitting.

Things to watch for:

- If the “Tips” bar open on the right side of student’s screens as they are creating the game that is a violation, as no outside help is allowed. They are to create their games from their own knowledge of coding and creating.
- Any other open program. Scratch should be the only thing operating on the computer.

**Prior to the Event:** Choose a broad theme that students will be designing their game around. Themes used in the past are fire, gravity, silly sports, waves, etc. The theme must be the same for all teams, and allow them to incorporate scientific principles into their games.

Test to be sure that each computer runs Scratch 2, or the online version, saves it how you are expecting participants to save, and that extra working computers are handy just in case. Also make sure you have the correct log-ins to access each computer, or a guest log in for participants to use when they arrive. Having a slip with this information, as well as saving procedures at each computer may be helpful.

**Scoring of Individual Teams:** There is a rubric available on [www.soinc.org](http://www.soinc.org) along with an explanation of the rubric. The rubric is time consuming, so reading through it (and discussing it) ahead of time will help speed the scoring process the day of the event.

The scoring rubric is broken down into two major categories: Game Mechanics (coding and development of the game) and Game Play (functioning of the game during game play). Each of these categories is worth 50 points.

Ties will be broken by comparing the point totals in the scoring areas in the following order:  
1st Tie breaker - Total points for Game Mechanics, 2nd - Game play, 3rd - User control, 4th - Balanced Play, 5th- Overall Game

More suggestions for grading can be found on the [soinc.org](http://soinc.org) website.

#### **Day of the Competition:**

- Check all of your computer equipment the night before and morning of. Arrive early enough to account for technical issues.
- Lay out your scratch paper, log in and saving instructions, and extra computers/equipment. If available, you can provide most of your instruction on a whiteboard or projector and not have to do individual slips. Just make sure this information is consistently available to your teams throughout the day.
- Walk through the timing and plans with your volunteers (who is collecting saved games, scratch paper, etc).
- Have a way to announce to students how much time is left, and make sure a volunteer is in charge of this. (ex. Announce 10 minutes left, 5, 2, 1, and 0)
- Have a plan for setting up the next time slot once the first one is finished.

**Scoring at End of Day:** Calculate the team's scores using the rubric. Highest score wins (tiebreakers are listed above). Make sure you break all ties before taking scores to the scoring room. Write all scores on the provided score card and take all rubrics and score cards to the scoring room.