

# Ambassador Digital Game Design



**Age-level:** Ambassador

**Pillar:** STEM

**Badge Description:** When you play a video game, you enjoy the end product of a many-step process. Game makers have to create every aspect of the game: the scenario, challenges, goals, characters, and every possible choice players could make. It's a complex and creative process that combines imagination and a strong understanding of computer programming and design.

1. Brainstorm your “game for good” scenario.
  - Game makers create the worlds that their characters inhabit. That means they create scenarios that include the setting, plot, and sequence of events. The scenarios reflect the game mechanics—or the rules and what the characters need to do to reach a goal. What kind of scenario could you create for a game that promotes positive change? Brainstorm a scenario for your game!
2. Create a G.I.R.L. avatar for your game.
  - Once you have a scenario for your game, you need a character to play in it. Game makers create each of the characters in their games. Create your G.I.R.L. character! Is she more of a go-getter, innovator, risk-taker, or leader? Make sure her outfit reflects her G.I.R.L. characteristics.
3. Learn about decision trees in game design.
  - Game makers use decision trees, which are like flowcharts, to create choices and consequences for characters. Some decision trees offer just two choices for each situation. Some offer a lot more, but the more choices in the decision tree, the more code the programmer has to write. The only limits are really the designer’s imagination and the time the team has to write the code. Write your own character’s decision tree using this [worksheet](#).
4. Design your game.
  - Continue your decision tree from Step 3 until you reach the conclusion of your game. Expand your game as far as you’d like—if you want some scenarios to have three or four options, add them in! Just remember to create outcomes for each new option, and allow the story to flow on from at least one option.
4. Play test and iterate your game.
  - Have a friend or family member play your game by reading out the first scenario and the options for the player to take. Then, follow your friend’s decisions through the game. Let them know if they’ve reached a dead end or GAME OVER, and allow them to start over from the beginning, or return to the last scenario.

Earned the badge? Purchase it [here](#).