

SARA THE SOFTWARE ENGINEER

TECHNOLOGY TUNES

Hi engineers! My name is Sara and I'm a software engineer! When I was in fifth grade, I loved using online apps to create different types of music. I was fascinated and knew I wanted to learn how to make more complex songs through technology! I studied computer science at Cal Poly. I was the first one in my family to go to college!

Computer science is the study of computers and how they work. Software engineers write code that's used by computers to do different tasks. As an audio software engineer, I write code to design some amazing songs!

Right now, I'm working on making a very special song for a huge Hollywood movie company's newest hit movies! I've been assigned to make the theme song for a brand new superhero movie and I could really use your team's help! What do you say? Let's get this song started!

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To get started on making the beat for our son, we need to move over to our drums! **Turn at a -45 degree angle** and **move a distance of 30 at speed 25**. Then have your team **create a custom sound** to illustrate an idea of what you want the beat of the song to sound like!

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Great start to our superhero theme song! One of my favorite things about audio software engineering is how it brings together creative and technical skills! Music is all about creativity, storytelling, and trying new things. For example, **change the color of my left ear to blue** and **change the color of my right ear to green**. Now use your creativity to **change my face pattern**. Coding is more precise, logical, and focused. For example, make me **move of a distance of 20 at a speed of 30**. Then make me **move of a distance of -20 at a speed of 40**. I never get bored of what I'm working on because I have to use all areas of my brain!

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Let's move over to the smaller instruments to see what other sounds we can add to our song! First, **wait 5 seconds**, then **turn 90 degrees** and **move a distance of 45 at speed 25**. I'm loving the beat your team came up with and I can't help but dance along! Make me dance by **repeating a sequence 4 times**. In the sequence, **set all of my lights to a random color**, make me **complete a forward spin, then a head shake**, and **finally a wiggle!**

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Lastly, we need to add in a harmony for our song! Harmony when is a second sound added on top of our original one. Let's head to the piano! **Turn at a -30 degree angle** and **move a distance of 35 at speed 25**. Then **turn -95 degrees** and **move a distance of 40 at speed 25** to play a key on the piano. Now **play a sound snippet called Red**. Next **turn 180 degrees** and **move a distance of 45 at speed 25**. Play another **sound snippet, this time called Green**, and **wait 1 second**. We've finally finished our song! Celebrate by **playing the Sigh sound**, **wait 1 second**, followed by a **Woohoo sound**!

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Great work team! Our superhero space theme song is one of the best I've ever made and I can't wait to share it with the movie's cast and crew! I couldn't have done it without all of your team's help, thank you! I hope all of you consider going into audio software engineering because you showed that you have all the skills it takes to be great at it! Who knows, maybe one day I'll be helping you make an awesome new theme song for a movie you're working on!

