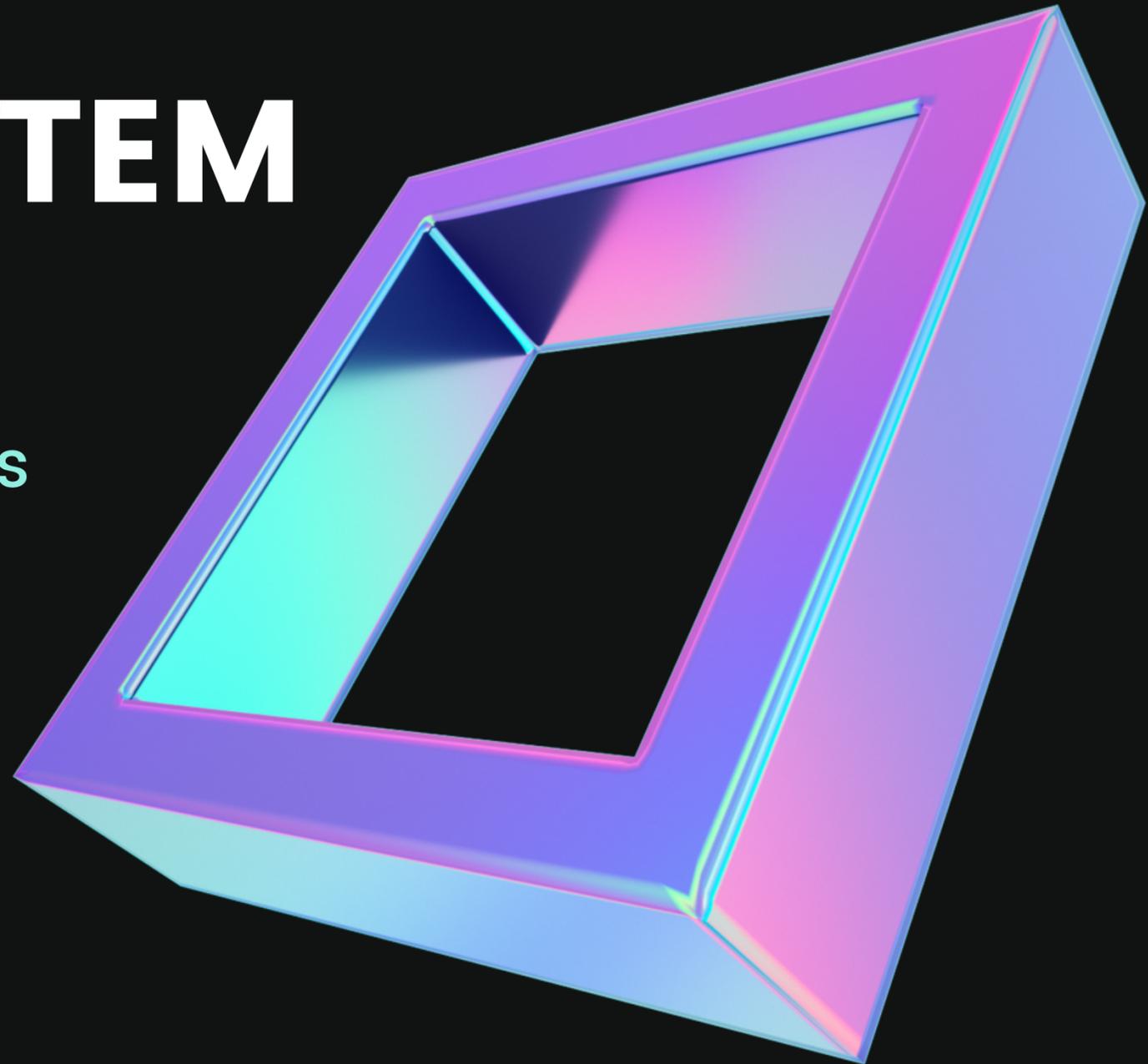


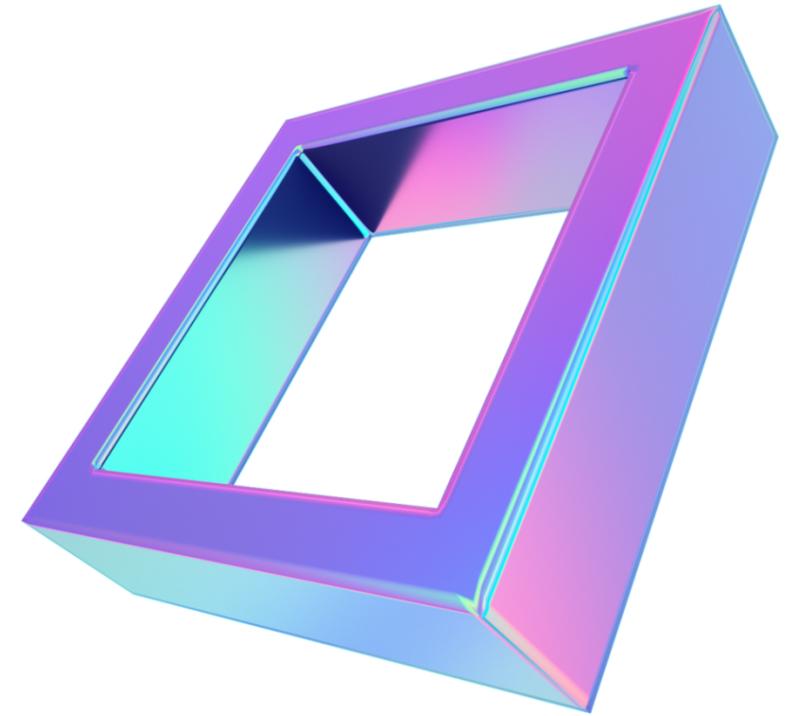
# WALT DISNEY IMAGINEERING STEM PROJECT

Presented by the Bradford Robotics  
Middle School STEM Team



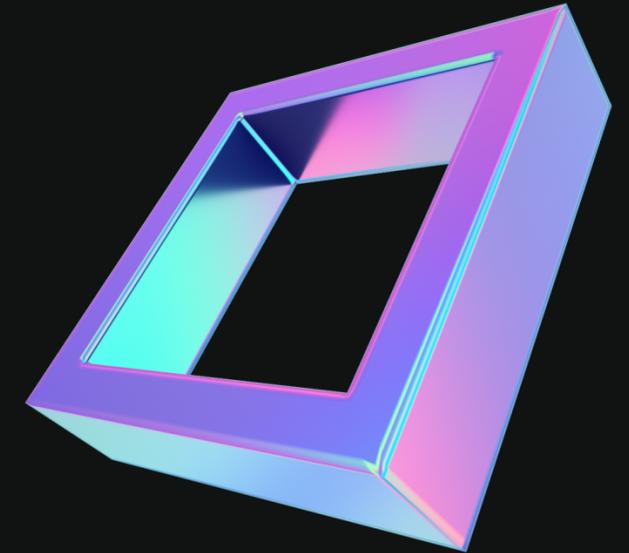
# Introduction to Walt Disney Imagineering

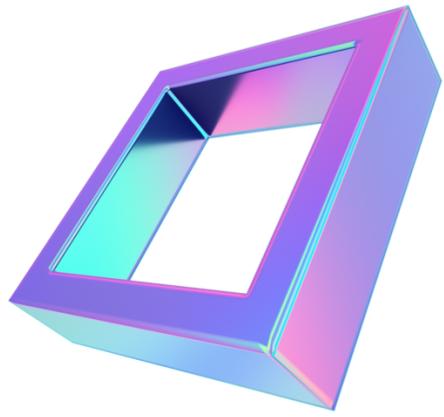
We are the Bradford Robotics Middle School STEM team and our project on career readiness is about a Walt Disney Imagineer. A Walt Disney Imagineer designs and builds all of the attractions, products, cruise ships, resorts, video games, merchandise, and publishing associated with Walt Disney Enterprises.



# All About Programming Figure Animation

There are lots of different types of Imagineers but our STEM team will focus on one particular one: a Programming Figure Animator. This person's job is to code and engineer audio-animatronics. An audio-animatronic is a robot controlled by code/animation. The audio-animatronic was invented by WDI (an abbreviation for Walt Disney Imagineering.) It can move and make noises, talk, sing, and sometimes can even interact with guests.



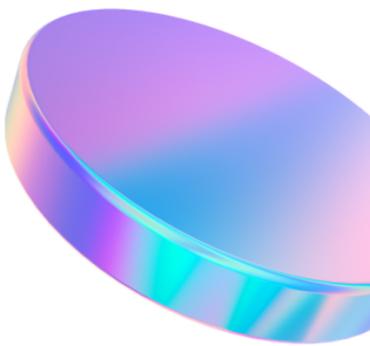


# Pierre the Parrot

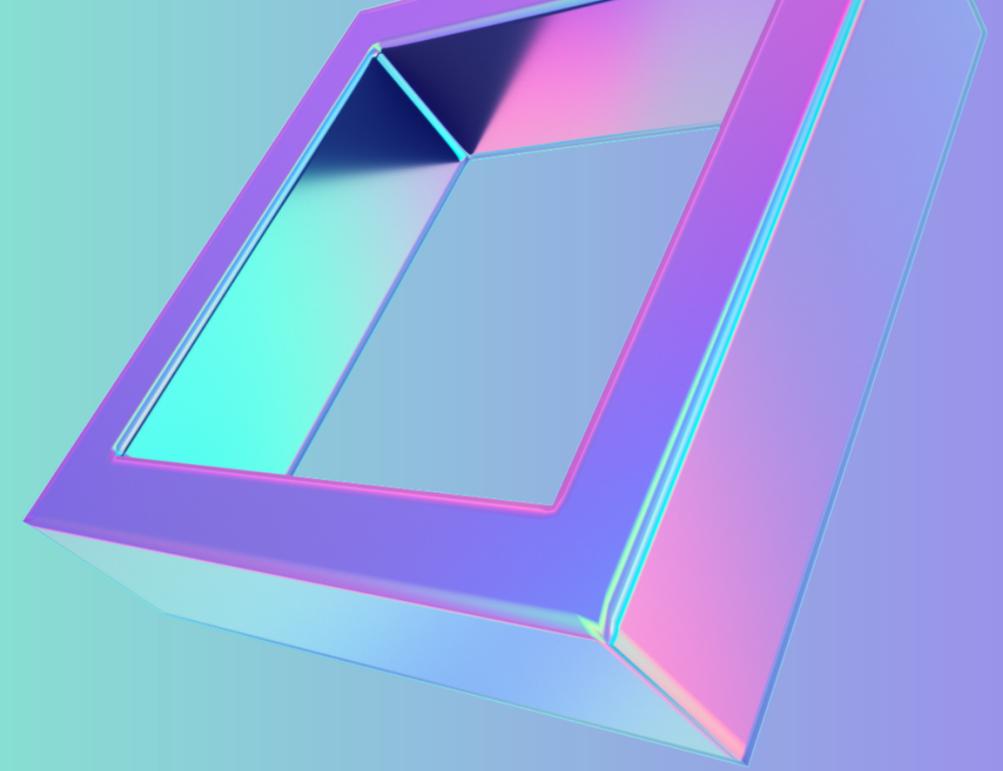
An example of an Audio-Animatronic



To the left is an example of an audio animatronic. He is Pierre, one of the four master birds from the Enchanted Tiki Room in Disneyland. Pierre sings and talks to the guests that come in and out of the Tiki Room all day. Currently, the most advanced audio-animatronic at Disney is the Shaman of Songs audio-animatronic, which can clearly speak words, sing, and match emotions to the words that she says. It is located in Disney's Animal Kingdom in the land of Pandora.



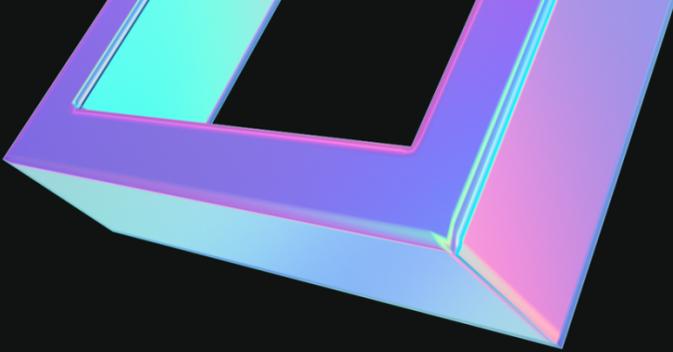
# What are the qualifications to become a Programming Figure Animator Imagineer?



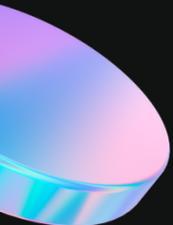
First, you will need to get a degree in computer animation, fine arts or graphic arts. You will need some sort of experience in one of these fields to qualify for a job at WDI. You have to be able to work well with other people because you will be working on different projects with different types of Imagineers and your type of field will overlap with other fields.

Secondly, you have to be good at being calm and patient. Sometimes you have to redo your project over and over again before you get it right, it might not even make the cut to be in the attraction, but you have to be patient for your turn in the spotlight.

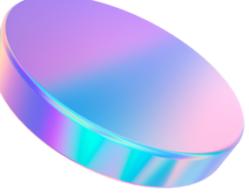
Lastly, you also have to be good at a little of everything because you will be collaborating with other types of Imagineers. The most important thing is to have fun! That's what WDI is all about: having fun!



## How much money does a Walt Disney Imagineer get paid?



There is a different range of pay for different people at WDI. As we said at the beginning of our presentation we will focus on a Programming Figure Animator instead of Imagineering so a Programming Figure Animator at WDI makes between \$83,000-\$89,000 a year. Hourly, Programming Figure Animators get paid \$16.51.



# Where is Walt Disney Imagineering Headquarters located?

WDI is located in Glendale, California, USA. WDI's street name is 1401 Flower Street, Glendale, CA 91201. WDI headquarters holds up to five-thousand people a day! The picture to your right is WDI headquarters.





# What does Imagineering have to do with Vex Robotics?

We chose Programming Figure Animation because it deals with two types of robotics: engineering the robot and coding the robot. To have a good audio-animatronic you have to balance the code according to the build, which is what happens in Vex Robotics.

You have to have good communication skills to work at WDI because you will be working with other departments that overlap yours. To have a successful Vex Robotics team you have to work together to reach a common goal. Vex Robotics prepares you for a job in Walt Disney Imagineering because the same principles apply to both jobs, work hard, communicate, and have fun.



# Who invented the Audio-Animatronic?

Walt Disney invented the first non-developed audio-animatronic with the help of Roger Broggie. It was called Project Little Man. Project Little Man could perform dance routines. Walt wanted to showcase an amazing audio-animatronic at the Chicago World's Fair in 1964. He and Roger got to work and finally finished the first ever fully developed audio-animatronic: Abraham Lincoln.

WDI patented the audio-animatronic in 1967. The Abraham Lincoln audio-animatronic, which is to your right, is still on display at Disneyland, Main Street, USA in the Great Moments with Mr. Lincoln attraction.



# Famous Audio-Animatronics

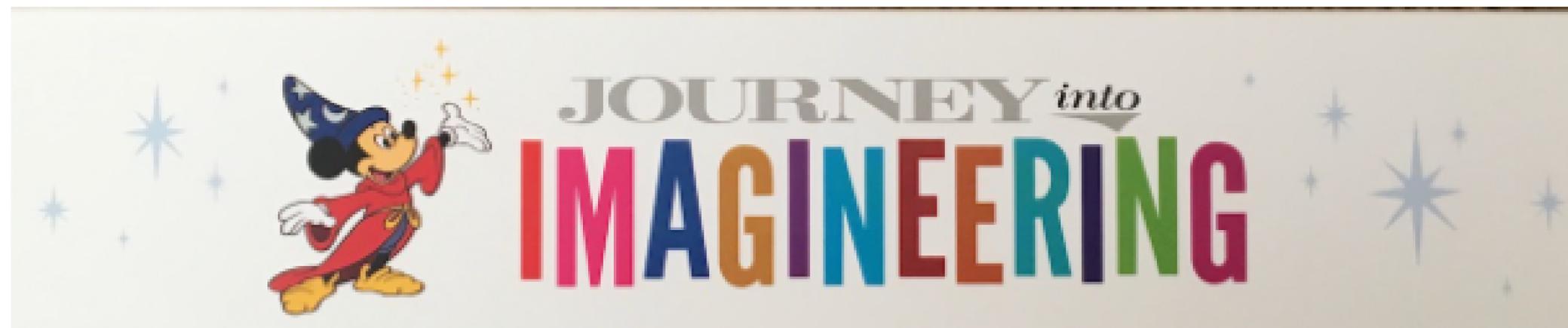
One famous Audio-Animatronic is called Lucky the Dragon. Lucky is the first audio-animatronic to walk freely. Lucky can also talk, purr, giggle, snort, cough, burp, yawn, sneeze, sniffle, and hiccup.

Another famous audio animatronic is Figment from Journey into Imagination. He is a fan favorite that talks and giggles. Finally, Captain Jack Sparrow (which is in the picture to the right) from the attraction Pirates of the Caribbean. He can talk, lean back in his chair, laugh, and sing.



# WHERE WILL WDI BE IN TEN YEARS?

We think that WDI will change in many ways, how rides close and new ones take their place will be one of them. There will always be a need for more audio-animatronics for new rides and some for adding to old rides, too. The Disney Parks will always keep expanding and finding new efficient ways to do things. Walt Disney Imagineering will always be looking for new ways for guests to have fun in their theme parks. WDI will always be changing and advancing in all of the STEM fields.



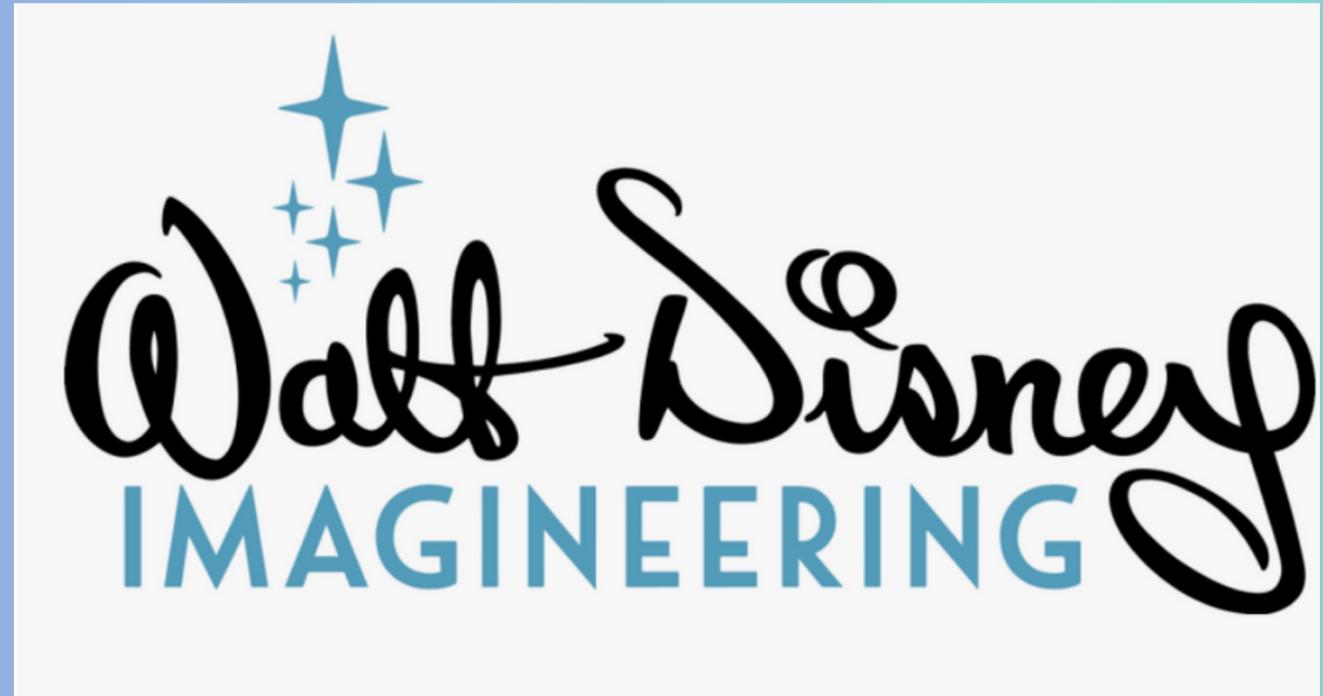
# Who has inspired us at Walt Disney Imagineering?



The person that has inspired us the most is a woman named Harriet Burns. She was the first ever female Imagineer. She was the first of her kind and broke a lot of barriers to get the job. She worked on many fan favorite attractions such as Pirates of the Caribbean, It's a Small World, The Haunted Mansion, and so much more! She also helped with the movie Snow White and the Seven Dwarfs. To the left is Harriet working on some of her many projects. Sadly, Harriet died on July 25, 2008, in Los Angeles, CA.



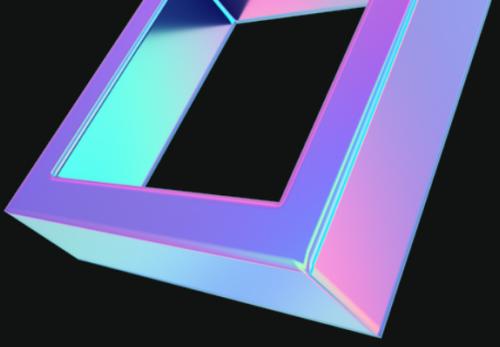
Harriet Burns



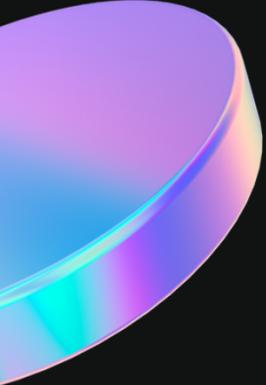
# Conclusion

AS YOU CAN SEE, STEM HAS SO MUCH TO DO WITH WALT DISNEY IMAGINEERING. MANY OF OUR TEAM MEMBERS WANT TO PURSUE A CAREER IN THE STEM FIELD. THAT IS THE MAIN REASON WHY WE WANTED TO DO THIS SPECIFIC ONLINE CHALLENGE. ABOVE IS THE WDI LOGO WHICH HAS JUST BEEN RECENTLY UPDATED. WE HOPE TO HAVE GIVEN YOU SOME GOOD INFORMATION ON WHAT IT IS LIKE TO BE A PROGRAMMING FIGURE ANIMATOR AT WALT DISNEY IMAGINEERING.

Laughter  
is timeless  
Imagination  
has no age  
and Dreams  
are forever  
-WALT DISNEY



# CITATION PAGE



TEAM NAME

The  
Crewmates

TEAM NUMBER

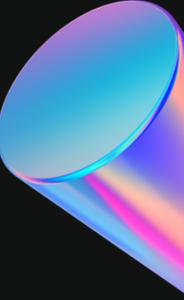
69582C

SCHOOL NAME

Bradford School  
District, Bradford,  
AR, USA

TEAM MEMBERS

Sophie Swiney, Lilah Smith, Destini Pearce, Jaiden Everhart,  
Ashlynn Clark, Lizzie King, and Hannah Osborn



# CITATION PAGE-SOURCES

<https://d23.com/walt-disney-legend/harriet-burns/>

<https://www.disneyfanatic.com/>

<https://disneyprogramsblog.com/>

[://www.pluralsight.com/blog/film-games/google-disney-artist-glen-keane-make-innovative-duet](https://www.pluralsight.com/blog/film-games/google-disney-artist-glen-keane-make-innovative-duet)

<https://disneyparks.disney.go.com/>

<https://themeparkarchitect.com/how-to-become-a-disney-imaginer/>

<https://disneyimagination.com/>

<https://www.britannica.com/>

<https://www.quora.com/>

<https://jobs.disneycareers.com/>

<https://www.waltdisney.org/blog/disneyland-classics-walt-disneys-enchanted-tiki-room>

[https://commons.wikimedia.org/wiki/File:Walt\\_Disney\\_Imagineering\\_\(2019\).svg](https://commons.wikimedia.org/wiki/File:Walt_Disney_Imagineering_(2019).svg)

Pictures

<https://d23.com/walt-disney-legend/harriet-burns/>

<http://www.imagineerharriet.com/>

[www.pinterest.com](http://www.pinterest.com)

[https://en.wikipedia.org/wiki/Great\\_Moments\\_with\\_Mr.\\_Lincoln](https://en.wikipedia.org/wiki/Great_Moments_with_Mr._Lincoln)

<https://www.designingdisney.com/research/design/discovering-ratatouille/tour-walt-disney-imaginer-headquarters/>

headquarters/

<https://thedisneydrivenlife.com/2011/08/26/walt-disneys-enchanted-tiki-room/>

<https://www.magicbandcollectors.com/disney-magic-bands/promotional/journey-into-imaginer-open-house/>

<https://quotesgram.com/disney-laugh-quotes-and-sayings/>