



The Magical World of Imagineering

Presented by team 3383C

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01

Introduction





As I step through the green gates,
I feel a surge of energy.




My eyes dart
from corner to corner,
up and down. The colorful rides and
animatronics, the aroma of fresh pretzels
and popcorn. People of all ages are smiling and
laughing. It's all so mesmerizing. I take a moment to breathe
and take everything in. I hear the heart-warming music that fills my ears
and mind with happy memories. I'm about to explode with excitement as I sprint
into the distance and let the happiness engulf me.



Introduction

You guessed it, we're at the happiest place on Earth, a Disney Park! At Disney Parks your imagination comes to life. From movies to books to your favorite Disney characters, but behind all of the magic is robotics. The people who make this possible are the Disney Imagineers.



02

What's The Magic?



What's The Magic?

At Disney Parks, the main attractions are their rides. Imagineers work on a variety of rides and attractions. Some are roller coasters while others are entirely made up of screens! Imagineers use innovations and designs to create memorable and unique attractions.



Imagineers use collaboration every day! Teamwork is so important in bringing the magic to life.



Imagineers create scaled models while designing the attractions!

Space Mountain



Space mountain transports you out of this world! Disney imagineers use a tubular track and light effects to make it feel like you are launching through space.



The imagineers designed the whole ride to be in the dark so you can't see what the track looks like. The track itself is messy and has sharp turns that you can't see coming. Space mountain is actually one of the slowest attractions at 28 mph, but feels much faster because of the Imagineer innovations!

Na'vi River Journey



The Na'vi River Journey is a magical boat ride that transports you to Pandora. This ride incorporates the “E” in STEM and has an advanced animatronic of a Na'vi shaman. This is a very revolutionizing piece of technology.

“We’re just learning with that technology, but the key is we don’t stop until that technology can’t be seen. It should be invisible, so when you see the Shaman she *does* look lifelike.”

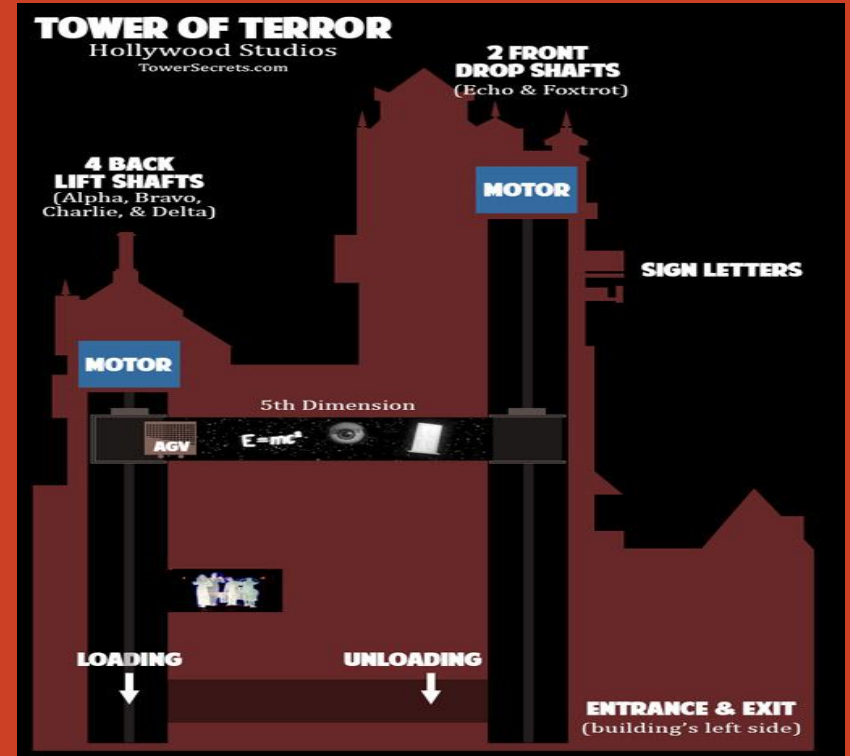
- Walt Disney Imagineering executive producer Lisa Girolami


Guardians of the Galaxy: MISSION BREAKOUT



The movie Guardians of the Galaxy is now a ride and takes you on an adventure with a mischievous raccoon named Rocket. This ride demonstrates STEM because of the tracks and designs throughout the ride. You may find yourself screaming when you suddenly drop 130 feet from the air. This is achieved by having a very unique track.

Track of Guardians of the Galaxy: MISSION BREAKOUT. This is the same track used for Tower of Terror





03

Imagineer Positions






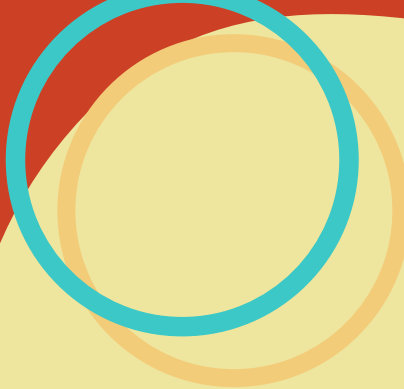
Two Mechanical Imagineers are looking on the inner workings of a ride.



An Imagineer working on a model of Star Wars Galaxy's Edge.

Imagineer Positions

Imagineering is a collaborative effort. One Imagineer does not think up an idea, publish it, and make it happen - it takes the whole team! The three main jobs are the creative director, project manager, and art director. The creative director chooses and publishes the ideas that are pitched by the team. The art director is in charge of the visual design, and the project manager makes sure that the project is done on time and on budget.



04

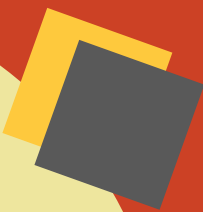
How Is Vex IQ Involved?





Vex IQ

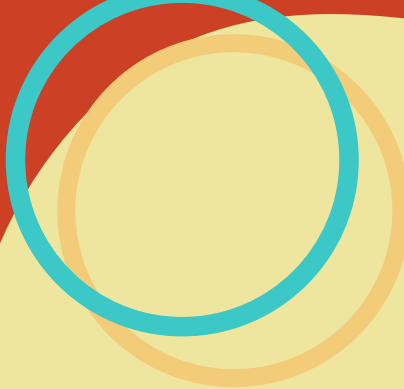
VEX IQ deals with STEM and engineering. In robotics you have to think outside of the box and be innovative. VEX IQ prepares us to be imagineers by teaching us how to collaborate with our team. It also teaches us how to code, design, and persevere.



Imagineers use STEM and robotics in their career! VEX IQ is a great pathway to learn fundamental skills needed for Disney Imagineering!

Imagineers





05

Interview



Interview With an REAL IMAGINEER



Stephanie Pearson is a Sourcing Specialist at Walt Disney Imagineering, in Orlando, FL. She went to college at the University of Central Florida and majored in mechanical engineering. She's also worked on The Jungle Cruise and Star Wars: Galaxy's Edge. She is Gianna's Dad's coworker's niece.



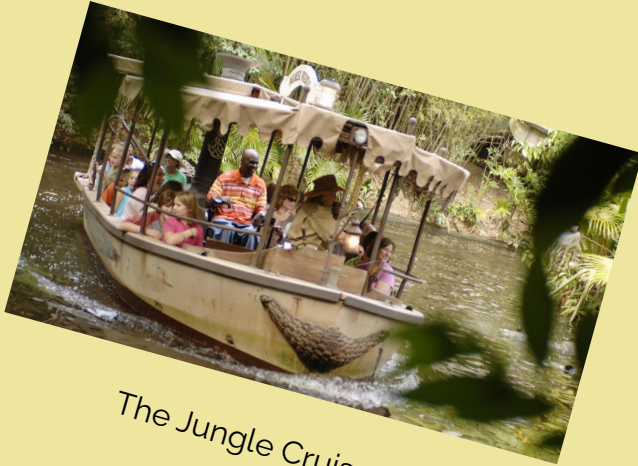
Interview Questions - Background

Did you always want to become an Imagineer?

"I did not want to become an imagineer, I didn't even know what they were" She found her passion for engineering when she was in college. She found a ride vehicle that inspired her to become an engineer.

What have you worked on as an Imagineer?

I have worked on the Star Wars project and the Jungle Cruise. I went from working on one project to multiple projects.



The Jungle Cruise



Star Wars: Galaxy's Edge

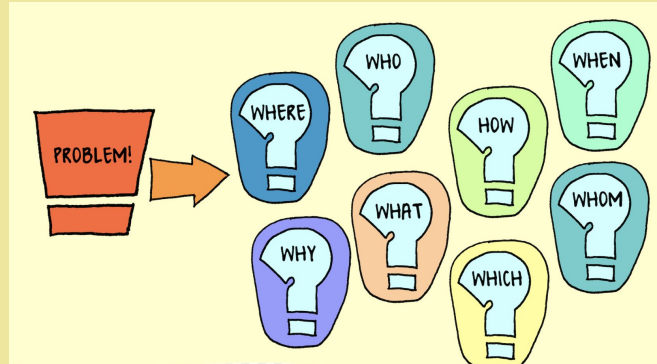
Interview Questions - College

What did you have to study in college to become an Imagineer?

"You don't have to be an engineer to become an imagineer." Stephanie said. You need to be able to imagine. She studied mechanical engineering and believes that problem solving is a big part of being an imagineer.

What inspired you to become an Imagineer?

I've always liked solving problems and I knew that I wanted to do something that made people happy. Many people who are engineers end up working for the government, but I didn't want to. I thought that if I were working for the government, people would be sad or mad about what I built. But at Disney, it was the opposite. People were always happy for a ride.



Interview Questions- Beginnings



What did you have to do in order to become an Imagineer?

Well, there was a little bit of luck involved. I had a few connections and managed to get an internship. But I also had to work hard and get good grades. Internships are also very crucial because they help see if you are suitable for the job. Luckily, I was, so I got hired!

What characteristics should an Imagineer possess?

Being able to talk to large groups is essential because you'll need to share and present your ideas to other people. Thinking outside the box and being a positive thinker is also a good trait because sometimes, things don't go your way and you need to stay positive and keep trying.



Disney Imagineers discussing budget cuts

Interview Questions - Obstacles

What are some obstacles that imagineers face?

One challenge is making awesome rides. Some people have a hard time switching from their scientific mind to their creative mind. Another challenge is being able to sell an idea. Disney rides need to stand out, for example, on Incredicoaster you can try to find all the Jack-Jacks on the ride. You can also hear the voices of the characters as you zoom through the ride. It's not just a roller coaster, it uses props and sounds and so much more. It was hard to make Incredicoaster stand out, but that was just another obstacle that we overcame.



Imagineers have to use their scientific mind to complete the technical aspects of the job like the physics of a roller coaster.



Imagineers also have to use their creative mind to design the aspects that makes disney rides so magical.



Interview Questions - STEM & Robotics

How does STEM relate to what you have worked on?

STEM is useful in thinking and creating ideas.

How does robotics relate to Imagineering?

"What do you think robotics is to you?" Stephanie asked us. Behind all the magic there is programming and robotics.

How do you believe this career field will evolve within the next ten years?

So far everything has become more high-tech. Disney right now is even using five types of coding. I think that in the future, more companies will realize how much easier technology can make their work and so Disney will rely on technology even more.

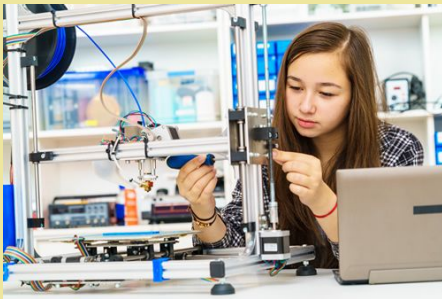


Disney Magicband
technology

Interview Questions - Girl Power

As a female engineer what advice do you have for aspiring young girls?

My advice is: try to get involved in a club. Making friendships with people will help you throughout life and you will learn things that don't come from a textbook. Having a friend you can depend on is really important and you can learn from them.



A girl working on a building and coding project.



Girl engineers.



06

Conclusion





As I walk out of the gates, I take a deep breath and glance back one last time. Everything seems to move in slow motion. There's fireworks booming in my ear and the taste of sugar still lingering on my tongue.

As I leave, I realize how all my favorite rides require STEM and robotics. I take a look at a ride to my left. I imagine gears whirring, people coding the ups and downs, and happy people riding on them.

A spark lights up in my eyes and I turn to my mom..."How do I do that?!" She follows my fingers and sees the rides lit with happy songs playing. Once she knows what I mean she says, "Why don't you ask that man over there?" She points to a man working outside the gate. I

run over to him and ask. He smiles and whispers in my ear, "Just imagine." He slides me a pin and I run my finger over the smooth cool surface that reads *Imagineer*.

CREDITS

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Thank you Stephanie Pearson for letting us interview you. It was a helpful view into the world of Imagineering.

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