



Superhuman Samurai Cyber Squad Engineering Module

Have Questions? Need Help? Contact Miss Jessica!

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Welcome Cyber Squad!

We hope you're ready to learn about engineering! We've put together fun activities, interviews, and extra resources for you.

How It Works

In order to complete this program, you must first [register on our Program Calendar](#). Soon after you register, you will receive an email giving you instructions on how to join [ReadSquared](#), our reading program software, where you will complete the missions for each module. You can work on the projects at your own pace, but you must complete the entire program within the allotted time frame (Oct 12 - Dec 18, 2020) in order to receive a TeenHQ bag of swag and be entered to win an Oculus Go Virtual Reality headset.

In this document you will find instructions on how to complete each mission in the Engineering Module, biographies of community professionals, and links to helpful resources (Ctrl + click the underlined words).

Missions!

Mission #1 Community Professional Interview

Instructions: Watch the interview with engineer Tyler Smith (18 min) You can find the link on [ReadSquared](#) and on the [Superhuman Samurai Cyber Squad](#) webpage. When you have finished, answer the question in [ReadSquared](#).

Tyler has been software developing at Endress+Hauser the past four years. He graduated from IUPUI with a Bachelors in Informatics and a double minor in Computer Science and Business.

Mission #2 Tinkercad

Instructions: Complete the [Learning Tinkercad](#) class on Lynda.com (1 hr 33min). Once you have completed the course, submit your own 3D design to be printed at GPL! You'll need to fill out a [3D Print Request Form](#).

Lynda is a great resource for learning technology. You can access it from our website by hovering over "Find Stuff" and clicking on "Online Databases." You will either need to have a library card or be in the library building.

Additional Resources (Click for links)

[YouTube Welcome to Tinkercad](#)

[Tinkercad](#)

[All3dp](#)

[Lynda.com Modeling Custom Designs](#)

[Makerbot](#)

Mission #3 Community Professional Interview

Instructions: Watch the interview with engineer and martial arts instructor Rose Myers (12min). You can find the link on [ReadSquared](#) and on the [Superhuman Samurai Cyber Squad webpage](#). When you have finished, answer the question in [ReadSquared](#).

Rose Myers has been the Chief Instructor and Owner of Pilsung ATA Martial Arts for the past 18 years and a practitioner of martial arts for 25 years. She employed her University of Dayton Bachelors of Science in Environmental Engineering within her field for 10 years, before switching to using it in STEM programming to better teach her taekwondo students.

****Bonus! Record a video of yourself trying out Mrs. Myers punches and email it to [Miss Jessica](#) for an extra raffle entry!*

Mission #4 Community Image Challenge

What do you think of when you hear the word engineering? For some your first thought might be robots, others might think of building bridges, and still others might picture environmental hazards and pollution. Engineering is a complex field with multiple avenues for choosing a career.

Instructions: Take a photo of an image in the community that represents engineering to you. Next research that object/place and explain how it was created or works with engineering skills. Submit your image on the [Google Form](#) and your researched reflection in [ReadSquared](#) to complete this mission.

Additional Resources (Click for links)

[Crash Course What is Engineering](#)

[Interesting Engineering](#)

[Engineering for Change](#)

[Career Explorer](#)

[Think Like an Engineer](#)

Mission #5 Kit Challenge

Instructions: Pick up your Engineering Kit at GPL in TeenHQ. You will be asked to use your engineering skills and the supplies provided to complete the challenge. Take a picture of your completed project and submit it in the [Google Form](#) to complete this mission.

Additional Resources (Click for links)

[Smart Draw](#)

[Teach Engineering](#)

[Venngage](#)

[Medium](#)

[Mind Mapping](#)