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It's Summertime!

Hey, SWENexters! Happy summer! Even the SWENext Newsletter takes the summer off, so this is our last newsletter issue of the school year. Since we won't be back until September, we've included lots of ideas for what you can do this summer. Enjoy your summer, be safe and keep engineering!

Engineering Management

Engineering Management is a specialized form of management that is required to successfully lead engineering or technical projects and personnel. Engineering managers typically require training and experience in both general management and the specific engineering disciplines that will be used by the engineering team.

The successful engineering manager must have the skills necessary to coach, mentor and motivate technical professionals. These skills are often very different from those required to effectively manage people in other fields.

Because this role requires engineering technical knowledge as well as management skills, many people choose this career option later on in their career or go back to school to specialize in Engineering Management.

Meet a Few Female Engineering Managers with Cool Jobs

Carol Leung

Engineer Manager, Airbnb

Carol is admired and respected by everyone from her bosses to her teammates. She is known for her ability to motivate people and keep projects on track. Her promotion as the lead of this engineering team has marked her as a rising star at the company.



Karen Casella

Engineering Leader, Netflix

Karen is the engineering leader of the Edge & Playback Access teams at Netflix. She is in charge of the teams that are responsible for ensuring users are viewing content securely.



Karen is not only an engineer at a major tech company but she’s also an advocate for underrepresented groups at Netflix and has done outreach for women.

Yael Garten

Director of Siri Analytics, Apple

Yael is in charge of using data to drive the decision-making for Apple’s voice assistant, Siri. “My work helps make people’s lives easier – whether it’s getting things done, allowing people to use their devices hands-free or making our technology accessible for everyone,” she said.



Corlis Murray

Senior Vice President, Abbott

Corlis is responsible for engineering, regulatory and quality assurance in more than 150 countries. She has held a number of senior roles, including senior manufacturing engineer, production manager and engineering manager.



Corlis won the Society of Women Engineer’s “Advocating for Women in Engineering” award last year. At Abbott, she launched a high school STEM internship program, targeting underrepresented students. She is passionate about helping young people, especially girls and minorities, realize their STEM (science, technology, engineering and math) dreams.

Fun Things to Do This Summer

Ahhh, summer! It’s finally here! Are you already saying, “I don’t have anything to do”?



Here are three STEM activities you can try at home.

- Think like a Civil Engineer and make a tower you can eat!
[Snack Time Edible Structure Instructions](#)
- Think like a Mechanical Engineer and make a roller coaster for a marble.
[Pool Noodle Marble Run Instructions](#)
- Think like a Chemical Engineer and study fluid flow with a water wall.
[Do It Yourself \(DIY\) Water Wall Instructions](#)

Want even more fun things to try? Here's a list of [100 Fun Summer Activities](#). For the STEM-focused ones, check out numbers 41, 42, 45, 48, 52, 55, 60, 81 and 83. You can search for "how to" instructions on the internet.

Have fun!

Register for Invent It. Build It. Middle School Girls Program in Anaheim This Fall

If you live near Anaheim, California and will be in grades 6, 7, or 8 in the fall, check out the Invent It. Build It. Middle School Girls Program and Outreach Expo on Saturday, November 9th. You'll get to meet women engineers and work on a hands-on project with other girls interested in STEM.



Seating is limited, so be sure to ask your parent or guardian to sign you up soon. [Learn more and register here.](#) (Tell them there is a Parents Program, too, where they can learn about engineering careers, scholarships, college admission and resources.)

Hope to see you in Anaheim in November!

SWENext Engineering Challenge with a Chance to Win a

Freebie!

Engineering Project Managers help develop a list of specific tasks needed to complete a project and schedule when they are due. They also help the engineers working on a project figure out how many employees are needed to complete a task and what materials or machines they need to do their jobs.

Project Managers are needed in factories, for construction projects, on research projects and in many other work places!

This month, we're challenging you to think like a Project Manager who works for a candy making company. Your boss has given you the task to plan out how researchers will develop a recipe for a new type of candy bar. She wants you to plan how to make the recipe and the time it will take to develop a good product. (This is all just a planning exercise. You don't really need to make the candy!)

Using a sheet of paper, or a document on your computer, plan out the following:

1. Decide what your new candy product will be and sketch it. Do you want to develop a new peanut butter and chocolate bar? How about a new citrus flavored sucking candy?
2. Plan out the ingredients you'll need for the recipe and what equipment you'll need.
 - a. Write out lists of ingredients for the recipe. Example ingredients include chocolate, caramel, nuts, eggs, sugar, oil, water and food dye.
 - b. Write out an equipment list. Example equipment includes: a bowl, oven, whisk, microwave, candy bar molds and measuring spoons.
3. Plan out how many different types of recipes you'll try. For example, if you're making a new chocolate bar, you might want to add different amounts of sugar to three different recipes to see which ones tastes best.
4. Write out a time table for how long each step will take. Make sure to allow time for recipe testing, doing taste tests of your product and then writing up a report on how you developed the awesome new candy.

Once you are done, send us your sketch and a one sentence description of the candy you pretended to develop! We'd love to see your new product idea. Email your entry to swenext@swe.org by July 5th. Each month, a lucky winner will be selected from the submissions to win a SWENext freebie. Don't miss the chance! All it takes is a few minutes.



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