

# TECHNOLOGY SECTOR - CODING

## CHALLENGE

### A Woman in Technology Pioneer!

Grace Hopper was a pioneer in the field of computer programming. In 1952, she created a program which allowed us to give instructions to computers using words instead of machine code for the first time, revolutionizing the field.

We challenge you to follow Grace's footsteps and "program" your friends or family members! Your challenge is to give a set of instructions to a friend or family member so that they successfully put on their shoes.

### What is Coding?

**Coding** is the process of using a programming language to get a computer to behave how you want it to. Every line of **code** tells the computer to **do** something, and a document full of lines of **code** is called a script. Each script is designed to carry out a job.

With the Challenger acting as the 'control' and the friend/family member as the 'computer', the 'Control' must shout a series of ten to fifteen commands, no more or no less, to a person sitting in a chair with their eyes closed – 'the computer'. The challenge is to have the 'computer' put on their shoes (either by tying, Velcro, slipping them on, etc.).

**Related Skilled Trades:** Robotics, Automation and Control, Coding

**Relevant Skills:** Planning, design, creativity & dexterity

[Click here for a full list of all recognized Ontario skilled trades](#)

## CHALLENGE MATERIALS

- Another person – could be a family member or a friend
- A shoe with laces, or other "tying" method such as Velcro

## RULES

1. The Challenger (Controller) must record ten to fifteen commands on a piece of paper, and then read them out to the family member or friend.
2. The family member or friend (Computer) must begin in the seated position
3. The 'computer' must successfully tie a shoelace following the directions shouted by the 'control'
4. **You will need to highlight what you as a girl can do and why girls ROCK! See full submission requirements below.**

## JUDGING/SCORING

There are **AMAZING** prizes to be won and **EACH CHALLENGE** has first, second, and third place prizes!

**1st place:** \$250 e-gift card  
**2nd place:** \$150 e-gift card  
**3rd place:** \$100 e-gift card

Submissions will be marked in the following:

Submission	Points
Challenger submitted entry but failed to meet requirements	0 - 5 points
Challenger submitted entry with all requirements	5 - 10 points
Challenger submitted video entry submission with a picture of their command list	10 - 15 points
Challenger submitted entry correctly and exceeded expectations with creativity. <b>Includes "Why Girls Rock" in the submission picture/video.</b>	15 - 20 points
<b>Total Marks (Total out of 20)</b>	

**\*\*REMEMBER, you will need to highlight what you as a girl can do and why girls ROCK!\*\***

Creativity of Commands	Points
No command list was provided	0 - 5 points
Command list was provided but did not meet expectations	5 - 10 points
Command list was provided and met expectations	10 - 15 points
Command list provided, challenger wrote commands in a clear and concise manner. Bonus marks given for creativity.	15 - 20 points
<b>Total Marks (Total out of 20)</b>	

**Challenger Total Marks: / 40 points**

### Submission

Submissions could be videos and/or pictures of your project. **You will need to highlight what you as a girl can do and why girls rock!** This can be done in either voice recordings within a video, or through a written document that is photographed with your project.

Submissions are to be posted on Twitter between October 5th – 9th. Tag **@skillsontario** and use the hashtag **#SkillsIDG2020**. If you do not have Twitter, or are uncomfortable posting, please email your submission to [info@skillsontario.com](mailto:info@skillsontario.com).

Skills Ontario will directly message winners on Twitter to let them know they won. If you choose to email your submission, we will reach you through the address you contacted us with. Winners will be publicly announced on **October 16th** on Twitter.