

The Phone Charger Conundrum

Student Worksheet:

Engineering Teamwork and Planning

A brand new wireless phone charger known as the PowerFork has recently been developed. You are part of a team of engineers that has been selected to help develop a new mobile phone that is compatible with or works with the PowerFork.

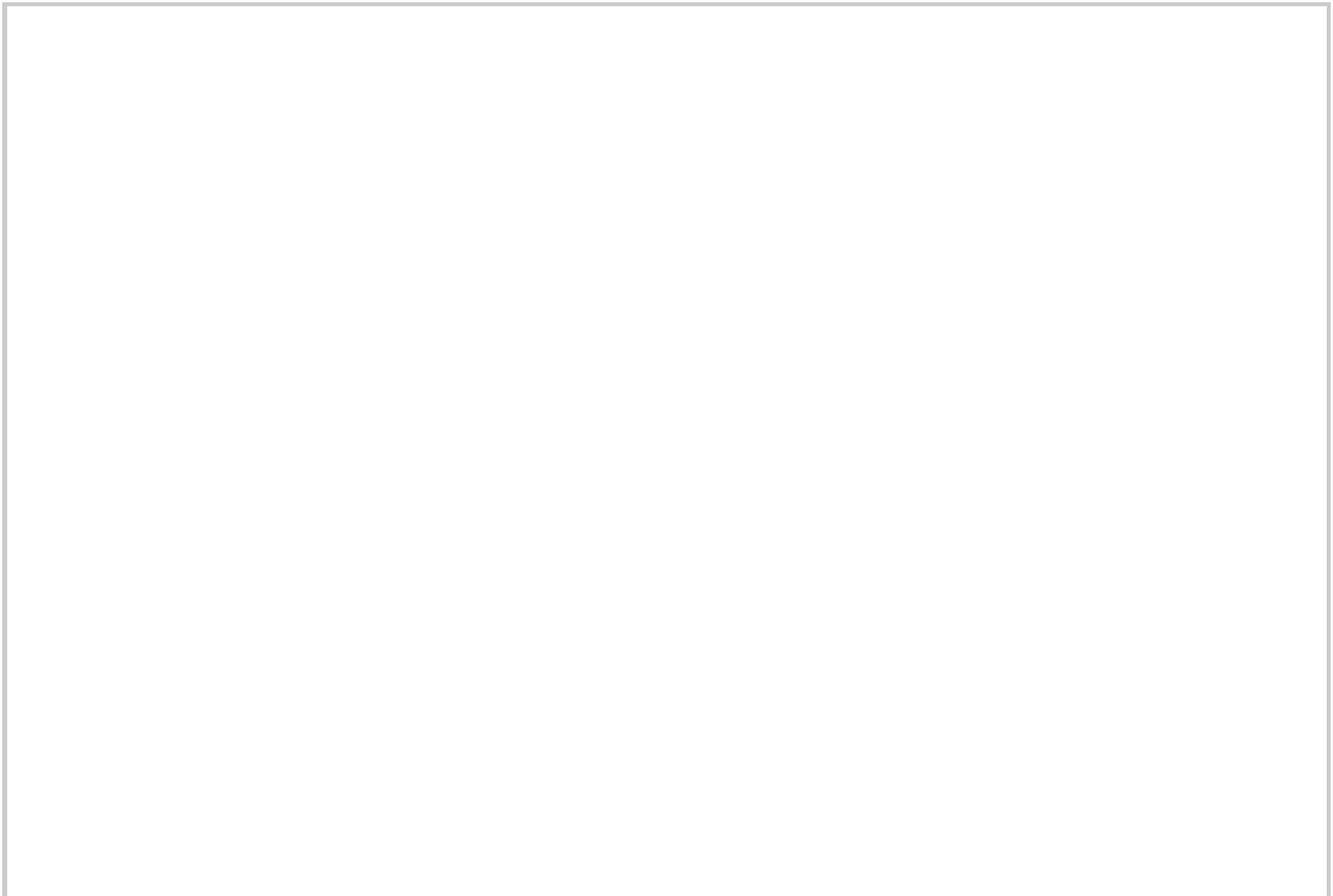
Once you receive your PowerFork, document its properties including (shape, size, length of tines, distance between tines, appearance etc.)

As a class, you will decide what is required to make the mobile phone that you design fit with the PowerFork.

Your phone can be any size, shape or have any features you wish, as long as it fits your PowerFork and everyone else's. Not only does your phone need to be functional, but it also needs to be attractive to users. You will build your prototype out of the simple materials provided, and then test your design.

Planning and Design Phase

Sketch your design ideas below. Include measurements.



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Construction Phase

Build your phone and test it to see if it plugs into the PowerFork perfectly. If yes, go to other teams and test whether it fits with their PowerFork.

Presentation and Measurement

Present your mobile phone design and the results of your testing to the class.

Evaluation

Complete the evaluation questions below:

1. How similar was your design to the actual mobile phone you built?
2. Were you able to design a phone that was compatible with the PowerFork? Was it compatible with other teams' PowerForks?
3. Did it work the first time, or did you need to make any modifications? Describe why your team decided to make revisions.
4. What was special or different about your phone, which in your opinion, made it better than others?
5. What is one thing you have learned about standards after participating in this activity?