

# Mystery Engineer - Directions



**STEP ONE:** In a Zoom Breakout room, introduce yourselves. You will select a group leader, a recorder, a timekeeper, and a reporter.

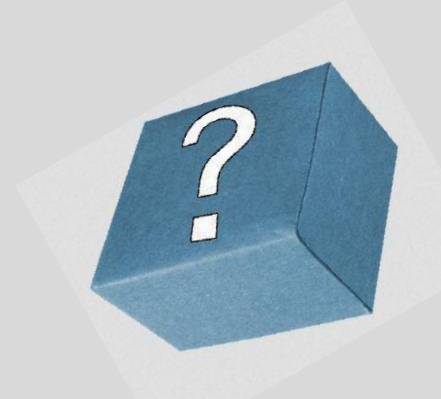
**Group leader** - facilitate conversation and keep group members on task

**Recorder** - record any notes that might be needed to help the reporter

**Timekeeper** - make sure your group has enough time to complete the tasks

**Reporter** - report to the whole group

**(5 minutes)**



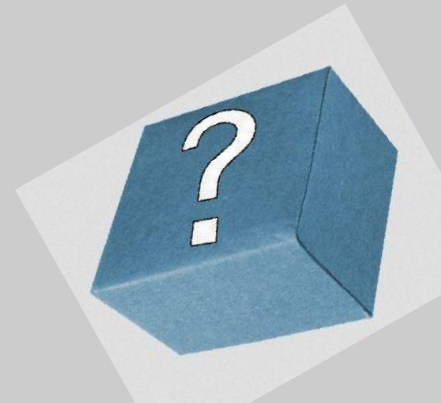
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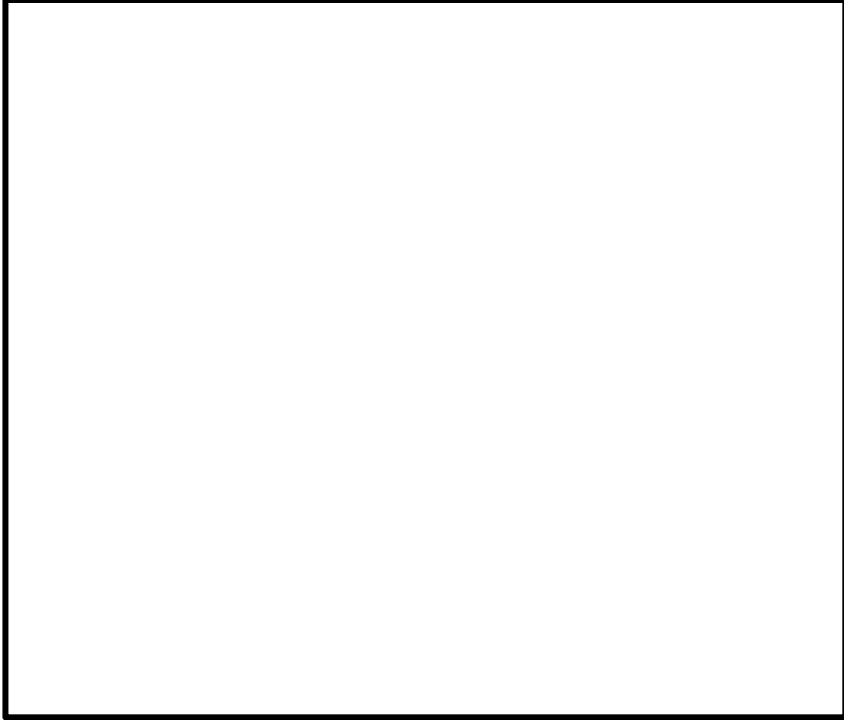
**STEP TWO:** Group leader come back to the main room to get your problem.

1. As a group, talk about the problem.
2. As a group, discuss constraints. **Recorder**, please record the possible constraints (on next slide).
3. As a group, brainstorm possibilities (on next slide). **Recorder**, you should also record these ideas on your shared Google slide.

**(20 minutes)**



# Constraints v. Ideas



# Mystery Engineer - Directions



## STEP THREE: Research

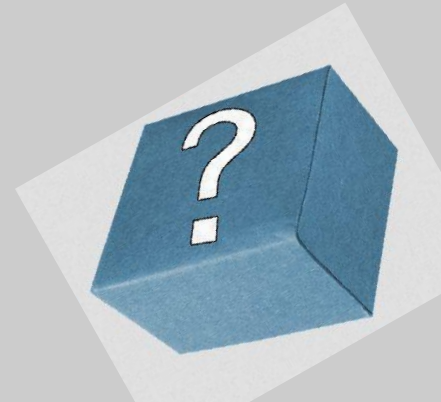
1. Individually, turn off your cameras and spend some time researching some ideas.  
(15 minutes)



2. In 10 minutes, come back together and share out your research. **Recorder**, collect the information (on the next slide).

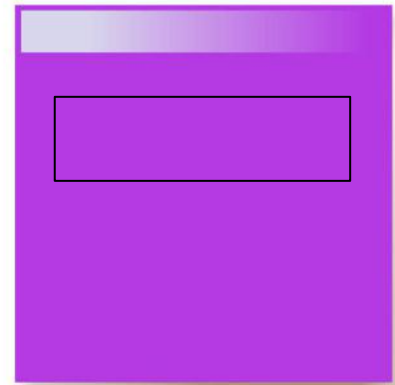
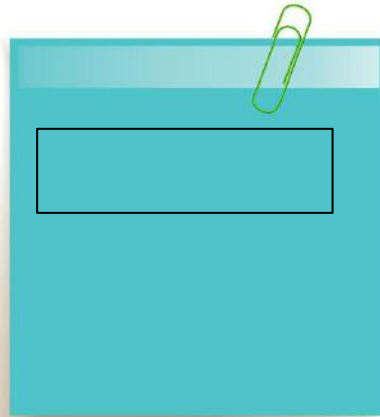
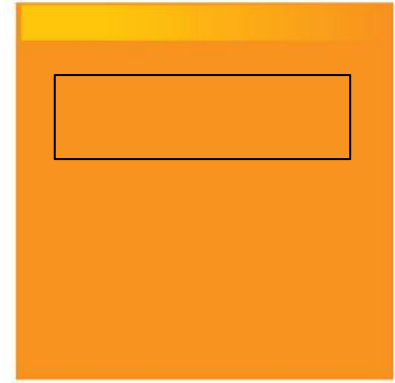
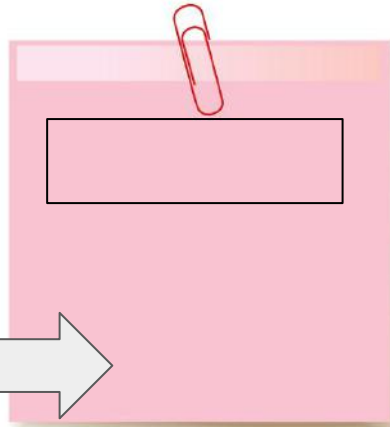


**(25 minutes total)**



# Idea Splash

Share your idea  
in a post-it!





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**STEP FOUR:** Gather materials, sketch a solution, build a prototype

1. **Individually**, turn off your cameras and spend five minutes going around your house and gathering materials. (5 minutes)
2. **Individually**, sketch a solution, considering your materials. (15 minutes)
3. **Individually**, build a prototype. (15 minutes)

**(35 minutes total)**



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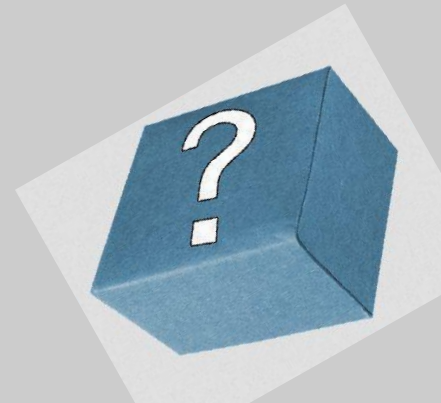


## STEP FIVE: Share

1. As a **group**, come back together.
2. Take turns individually sharing your prototypes.
3. Provide each person with feedback on their prototype by using the following statements:

*I notice...*      *I wonder...*

**(15 minutes)**



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## STEP SIX: Improve

1. As a group, choose which one you would like to improve/refine.
2. Work together to refine and improve.
3. We will share out your final product with the whole group for feedback. **Post your final product on our [padlet here!](#)**

**(10 minutes)**

