

# Let's Communicate

## Overview:

*This activity comes from an out-of-print book of activities. We have modified it for our activities. If you have come to a Family Engineering Night, you have seen this activity before.*

The purpose of this activity is to show how important good communication skills are to engineers. Often engineers must communicate with people without being present on the job. Engineering requires many groups working together to do parts of a project. Rarely does one person do an entire project. In most situations, people with specialized skills are asked to help in areas where engineers might not be knowledgeable. For example, engineers are capable of building things but may not have the greatest amount of practice with actually building something. So a person trained in construction or fabrication are asked to help to get the job done faster, more precisely, and in a safe manner.

This activity can take place in the same room or can take place on Zoom, FaceTime, Skype, or another videoconferencing option.

## You will need:

- Two people: one builder, one engineer
- Legos – make sure that each person has the same pieces, even if they aren't the same colors
- If in the same room, you will need boxes to block the engineering and the builder from seeing each other's work

## Directions:

1. Count your Lego pieces and make sure everyone knows they have the same amount and types of pieces
2. Have the engineering build something behind their box, so the builder can't see it. If your engineer is young or "doesn't know what to build!", please help them.
3. After your engineer builds their model, they must instruct the builder how to do it. The builder cannot look and cannot ask questions.

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## Directions (cont.)

4. As the engineer helps the builder replicate the model, the engineer needs to make sure they are clear about what the builder is doing.

If you are doing this with younger kids, you will need to prompt them a bit more. Here are some suggestions:

- "Use the square piece with four dots on top as a base"
- "Make sure that the piece that's long and skinny makes an arm/bridge/base"

You can also model how to give appropriate feedback:

- "You're doing a great job telling me what blocks to use."
- "It must be hard not to see my model. You're doing great!"

5. Once the builder is done, compare the finished product with what the engineer created. Make this fun – it doesn't have to be perfect, because close enough makes a good learning experience!

