

## Programming Related Activity Ideas

**Translate the Program Game.** Say, “I’m going to write a program (keep it simple) and display it on the screen. Raise your hand if you’d like to try to explain what the robot will do”. Hear from about 3-4 kids (if they are interested). Then demo the robot to show them what the program does. You can then briefly explain the blocks and tell them how the program executes.

If they are all stumped you could type in a hint or two using the commenting tool. You might even type... Isn't it nice when programmers document their work?!? 😊

**Challenge me! Game** Ask for someone to tell you what the robot should do and then you program it to do it. If they tell you something unrealistic, remind them what kinds of things a robot can do. You might suggest a few choices and then have them pick from your list. Or you could write up some program ideas (mini challenges), one per index card, and the kids could pick one from the stack. You might want to talk about what you are doing and why as you create the program. Maybe after that you could pick a challenge from the stack for the group to do (not in front of everyone, but on their own).

**Observing a Robot** Look at some of the robot movies on our YouTube channel. Point out things that they could look for... such as do they reuse attachments? Do they use sensors? If so, what kind? How many robot drivers do they have? Point out which ones are line following, and things like that.

**Detailed Instructions** Make up two bags of LEGOs that are the same. Have a group build something with the one bag of parts. They should write down instructions on how to build their creation. These instructions should be good enough that someone else could build it from the instructions. Now give the instructions to another group of kids (without letting them see the creation). Have them follow the directions. Then compare the two creations—Are they the same? Similar? Discuss the outcome. How could you have gotten better results? (We got this idea from our friends at [www.Techbrick.com](http://www.Techbrick.com) ).