## Example

Beginning: It can be helpful to go over an example as a class. There is one cup stack in the pack that includes only three cups, that is the sample card. Hold it up for the class and walk them through the exercise.


3 Cup Stack from Cup Stack Pack
Place your stack of cups on the table where everyone can see them. Ask the class to instruct you on the first thing to do. The correct answer is "pick up cup". When you pick up each cup, note that the cup should automatically rise above the highest cup already in the stack.

With your hand still in the air, ask for the next move. You may have to remind the class a time or two that one step forward is only half the width of a cup.


Step Guide

## Lesson 3: My Robotic Friends

Middle: Once you've placed a single cup, transition back to the blackboard (or document camera) and challenge the class to help you write the symbols on the board so that you can "run the program" later. One possible solution looks like this:


One Solution for 3 Cup Stack
Completion: With the program written down for the class to see, you can call a volunteer to "run" it, or you can run the program yourself. Say the arrows out loud as you move the cups into place. For example, the program above would be pronounced:
"Pick up cup", "Step forward", "Step forward","Put down cup"
"Step backward","Step backward"
"Pick up cup","Step forward", "Step forward","Step forward", "Step forward", "Put down cup","Step backward", "Step backward", "Step backward","Step backward"
"Pick up cup", "Step forward","Step forward", "Step forward", "Put down cup"


Pick Up Cup


Step Forward


Turn Cup Right $90^{\circ}$


Put Down Cup


Step Backward


Turn Cup Left $90^{\circ}$



