

Termites activity instructions

Goal: Work as a group to program two termites to build a stack of wood chips. There are many right answers. Try to use as few commands as possible.

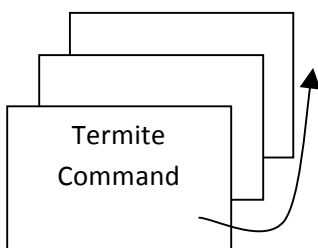
Rules:

1. The termite is represented by an orange block. The pointy nub is the “nose” of the termite and points to the direction that it is facing. Place the termite blocks in any of the squares on the board.
2. The wood chips are represented by the 10 blocks. Separate them into individual blocks and randomly scatter them around the board, one block per board space.
3. Each termite can only carry one chip at a time.
4. Each termite follows the same, limited set of instructions (about 3-5).
5. The set of instructions is repeated over and over, in a loop.
6. The wood chips are randomly scattered on a grid.
7. The termite can turn left or right 90, 180, or 270 degrees.
8. If the termite hits the edge of the grid, turn 180°, and finish executing the instruction.
9. You may combine some of the commands to make an If statement.
 - a. Example 1: If (have chip?) then forward 4.
 - b. Example 2: If (not)(have chip?) then right 90.

Hints:

1. How can you get your termite to pick up a chip?
2. If your termite picked up a chip, where should the termite drop it? How can you use an If-Then statement to do this?
3. How can you program your termite to move to lots of places on the grid so it has a better chance of finding a chip?

Execution Model:



After executing the command, move the index card to the back of the deck.