

## Wait Program! Worksheet **Challenge 2 Solution**

Answer the following questions related to program design:

1. Define the task you would like to perform:

**We want the robot to:**

- Remain at rest until the touch sensor is pressed.
- Once the touch sensor is pressed, move slowly forward until the touch sensor is pressed again.
- Once the touch sensor is pressed a second time, move twice as fast.
- Once the touch sensor is pressed a third time, move twice as fast as before.
- Once the touch sensor is pressed a fourth time, stop.

2. Write a set of instructions in English for creating the program:

1. Wait until the touch sensor is pressed
2. Move forward slowly
3. Wait until the touch sensor is pressed
4. Move forward twice as fast as before
5. Wait until the touch sensor is pressed
6. Move forward twice as fast as before
7. Wait until the touch sensor is pressed
8. Stop

3. Brainstorm about possible programming solutions below and write the one below that your group thinks is a good one.

1. Wait until the touch sensor in port 1 is pressed
2. Move forward for unlimited with power set to 25
3. Wait until the touch sensor in port 1 is pressed
4. Move forward for unlimited with power set to 50
5. Wait until the touch sensor in port 1 is pressed
6. Move forward for unlimited with power set to 100
7. Wait until the touch sensor in port 1 is pressed
8. Stop

4. Did you have to “iterate” (make changes to the program, etc.) to make it work? How many iterations did you have to perform? Briefly explain each one.

**Answers will vary. Example answer: No, the program worked correctly the first time through.**