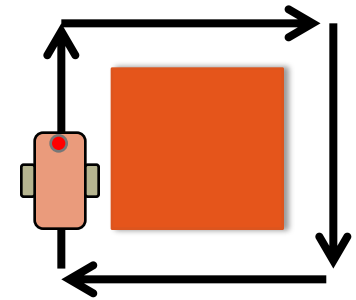**Loops**

By Sanjay and Arvind Seshan

BEGINNER PROGRAMMING LESSONS

LESSON OBJECTIVES

1. Learn how to repeat an action

2. Learn how to use Loop Blocks

REPEATING AN ACTION

How can we move around a box using the commands we already know?

- **(move + turn) + (move + turn) + (move + turn) …**

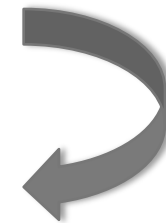| Move Forward ~ 21 inches	Turn Right 90 degrees	Move Forward ~ 21 inches	Turn Right 90 degrees	Move Forward ~ 21 inches	Turn Right 90 degrees	Move Forward ~ 21 inches	Turn Right 90 degrees

Is there an easier way?

Hint:

LOOPS

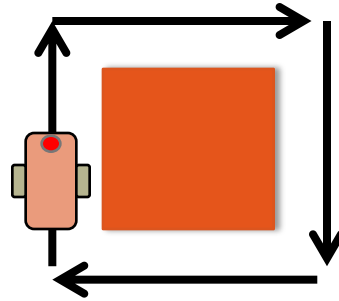**Loops make repeating a task multiple times easy**

- KEEP GOING….Forever, for a Count, Until touch (or something else)
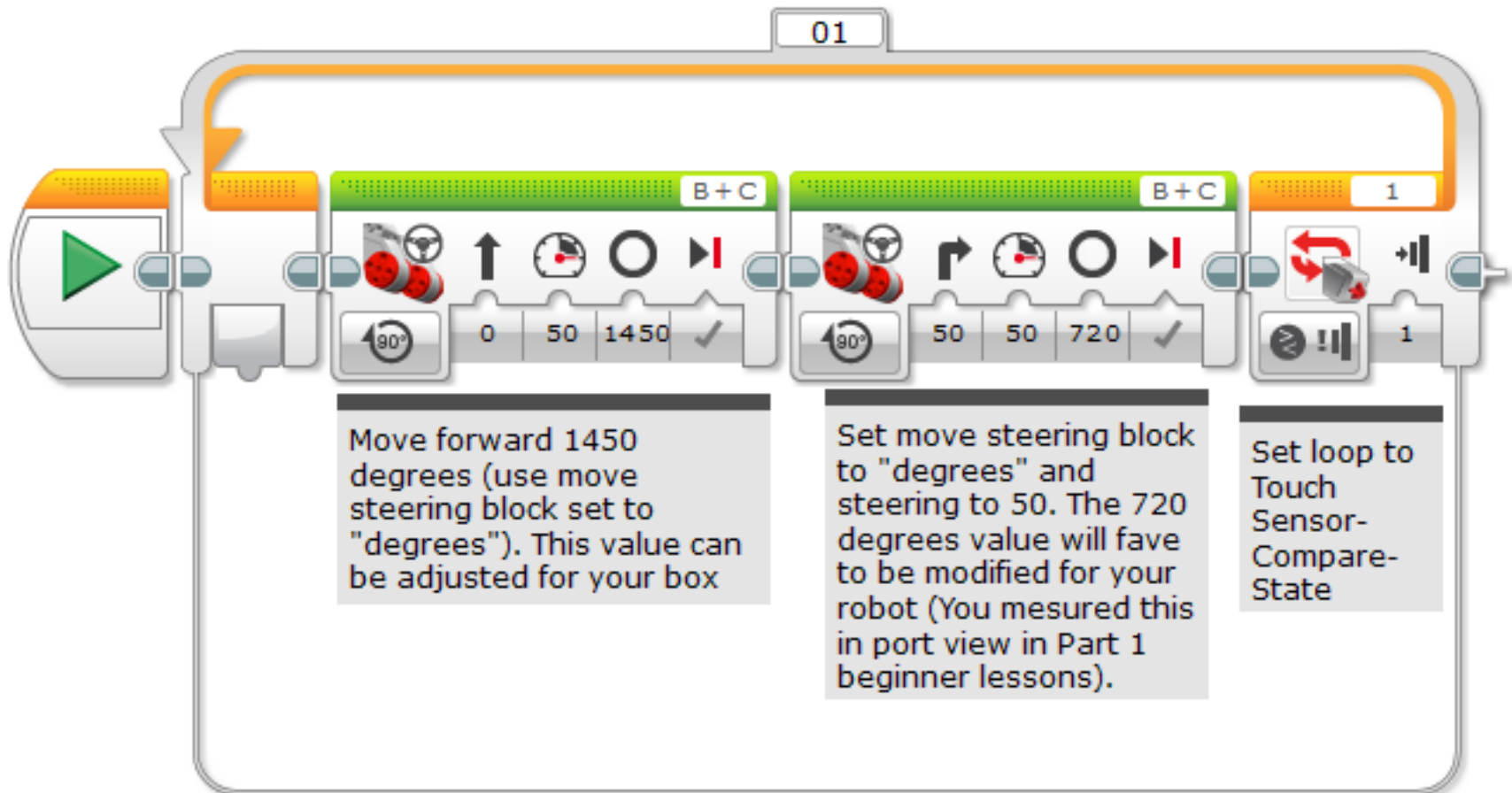
Repeat the loop 4 times

4

LOOP CHALLENGE

Challenge: Write a program to go around a box until touched. You must use a LOOP

LOOP CHALLENGE SOLUTION

Challenge: Write a program to go around a box until touched

01

B + C

0 50 1450

B + C

50 50 720

1

Move forward 1450 degrees (use move steering block set to "degrees"). This value can be adjusted for your box

Set move steering block to "degrees" and steering to 50. The 720 degrees value will fave to be modified for your robot (You mesured this in port view in Part 1 beginner lessons).

Set loop to Touch Sensor-Compare-State

CREDITS

- **This tutorial was created by Sanjay Seshan and Arvind Seshan**

- **More lessons are available at www.ev3lessons.com**