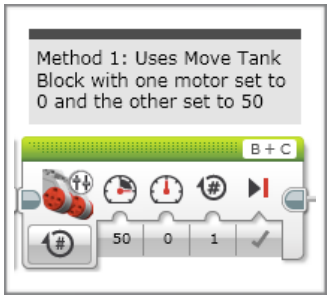
# TRUTH ABOUT TURNS (PIVOT TURNS)

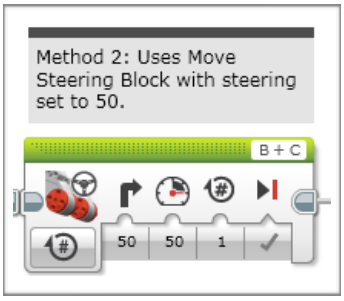
By Droids Robotics, 2015

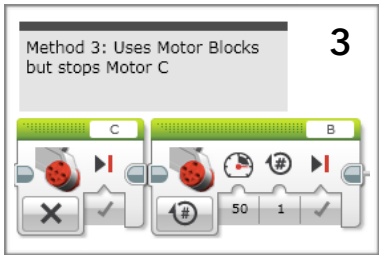
Here are four ways of making a pivot turn. For the pivot turns below, you want Motor B to go exactly 1 rotation and Motor C to stay still.

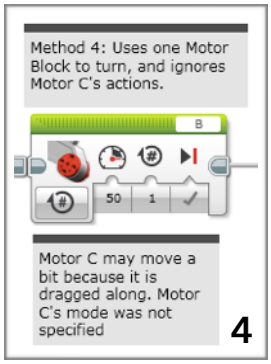
1



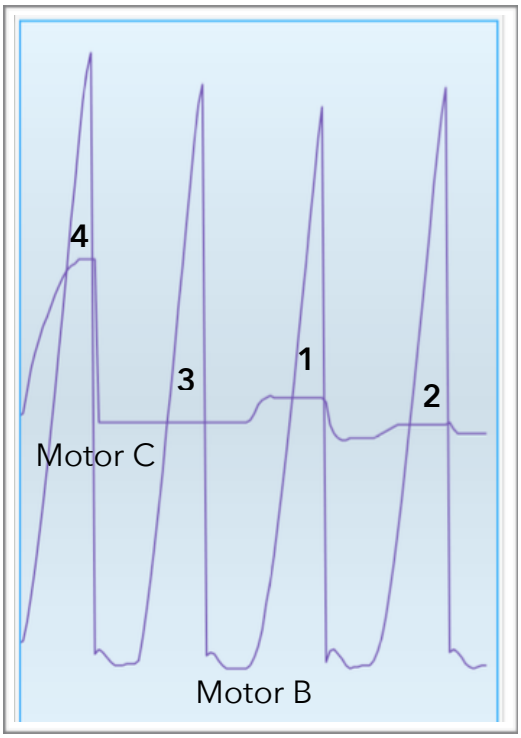

2




Data Logging Graph: shows the rotation sensor for motors B & C for the four pivot turns on the left.




| | BLOCK | NOTES |
|---|---|---|
| **Method 1** | Move Tank | • Both have motor synchronization, ramp-up/ramp-down. They both let you make the two motors move at different speeds (using steering values for Move Steering or the separate input powers for Move Tank) |
| **Method 2** | Move Steering | • Easy to create & use.<br>• The data logging graphs shows that they behave the same. |
| **Method 3** | Large Motor with one motor stopped | • Notice in the data log that this technique works the best! Motor C does not move during the turn.<br>• In practice, you may not notice this difference, but the data log shows there is a difference |
| **Method 4** | Large Motor | • Only one motor's parameters are set. The other motor may be "dragged along".<br>• Notice that the second motor is moving a lot (unintentionally) in the graph above<br>• Not a reliable way of turning. |