

# Programming Workshop 2010 (Afternoon)

## Move Until Near

<p>The image shows a sequence of three programming blocks. The first block is a 'Move' block with a green flag icon, a gear icon, and an infinity symbol. The second block is a 'Distance' block with a number '4' and a distance icon. The third block is a 'Stop' block with a gear icon and a red stop sign icon.</p>	<p><b>Configuration</b></p> <p>1<sup>st</sup> Block: Unlimited Duration          2<sup>nd</sup> Block: Distance is 25cm          3<sup>rd</sup> Block: Stop</p> <p><b>Try This!</b>          Make the robot stop farther away from the obstacle</p>
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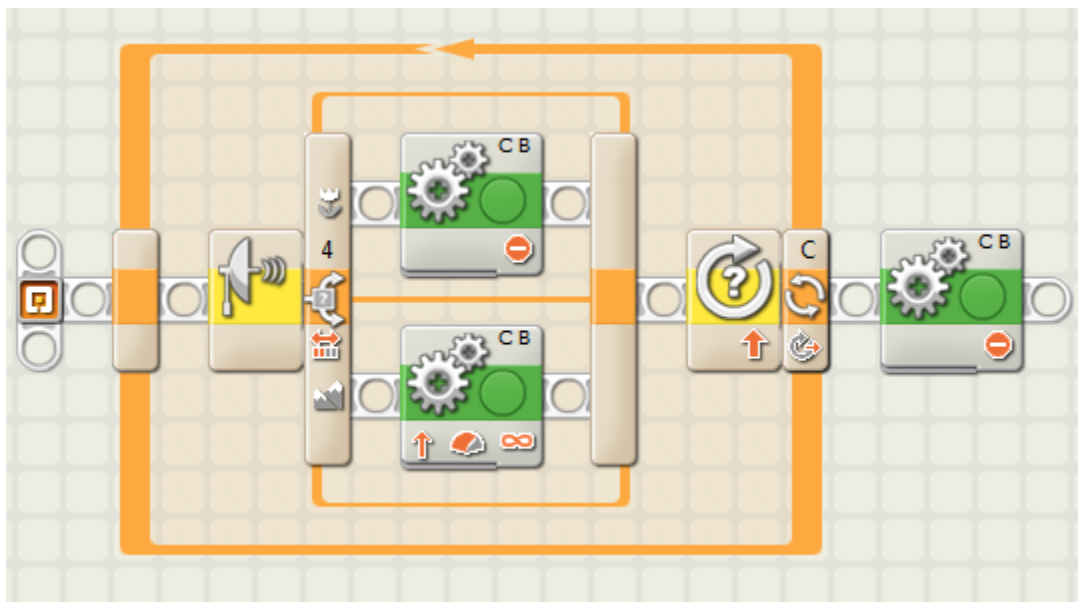
### Notes:

## Repeating Behaviors

<p>The image shows a loop structure with two 'Move' blocks. The first block has a gear icon and a number '3'. The second block has a gear icon and a '185' degree turn icon. A blue arrow indicates the loop repeating. A 'Repeat' block with a number '4' is also shown.</p>	<p><b>Configuration</b></p> <p>Loop: 4 count          1<sup>st</sup> Move: 3 rotations          2<sup>nd</sup> Move: Point turn left, 185 degrees</p> <p><b>Try This!</b>          Adjust the point turn duration to turn precisely 90 degrees          Go around the square two times.</p>
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### Notes:

## Obstacle Detection



### Configuration

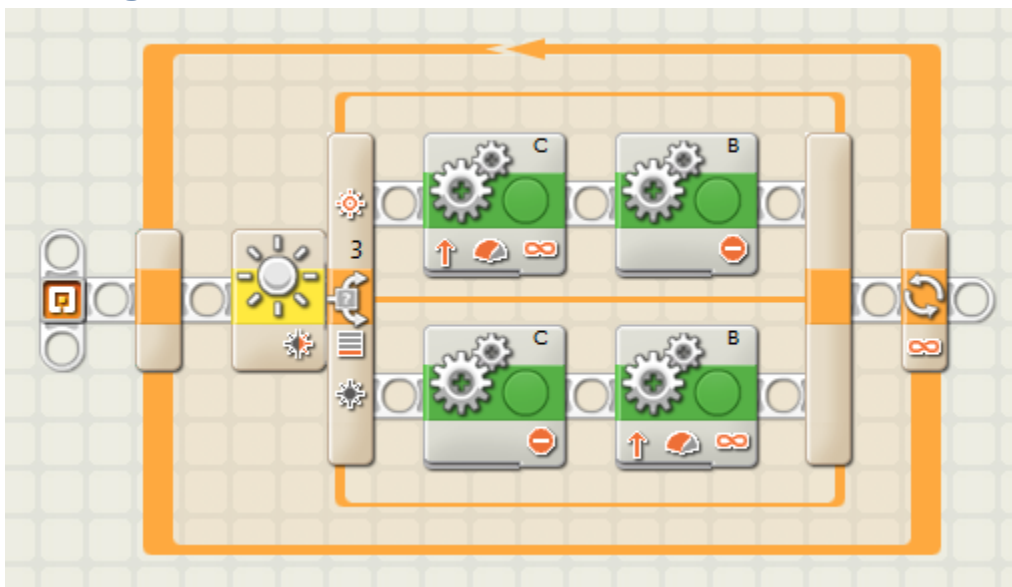
Loop: Rotation Sensor, Port C, until 4 rotations  
 Switch: If less than 25cm  
 Top Move: Stop  
 Bottom Move: forward unlimited  
 End Move: Stop

### Try This!

Adjust the loop duration  
 Increase or decrease the switch distance

### Notes:

## Line Following



### Configuration

Loop: Forever

Switch: Light Sensor, set threshold

1<sup>st</sup> Top Move: C only, unlimited duration

2<sup>nd</sup> Top Move: B only, stop

1<sup>st</sup> Bottom Move: C only, stop

2<sup>nd</sup> Bottom Move: B only, unlimited duration

### Try This!

Adjust the threshold

Change the "Stopped" blocks to a low power level (example: 25%)

Make the robot follow the other side of the line

### Notes: