

# 29 Ultra Hit Again

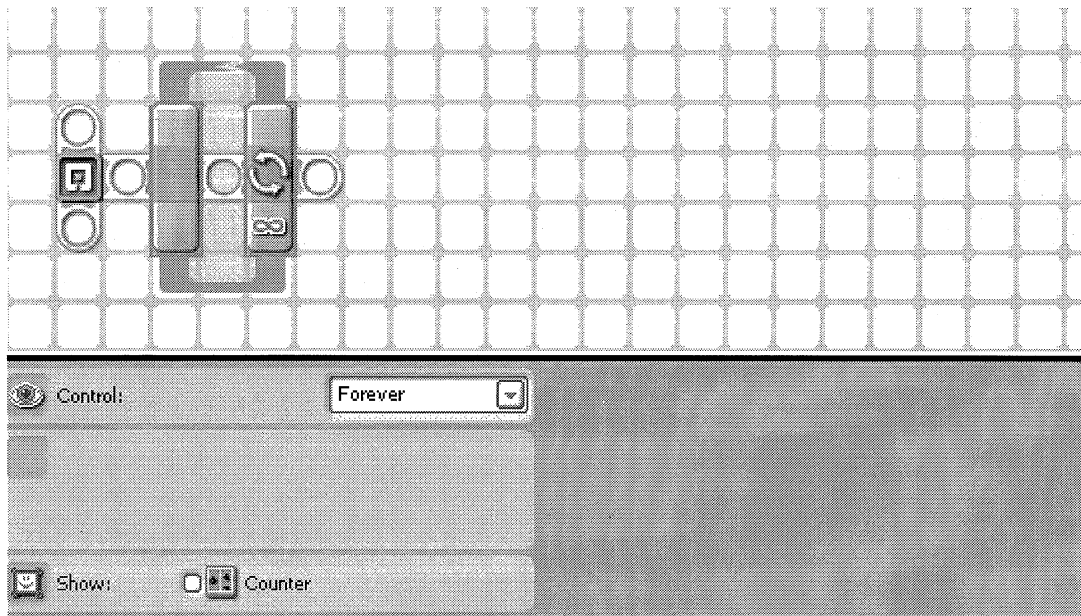
**Mission:** the robot will move forward until it touches the wall, it will then back up until the ultrasonic sensor senses that it is one foot away from the other wall. It will do it over and over again.

**Equipment:**  
none

**Sensors:**  
touch  
ultrasonic

**Directions:**

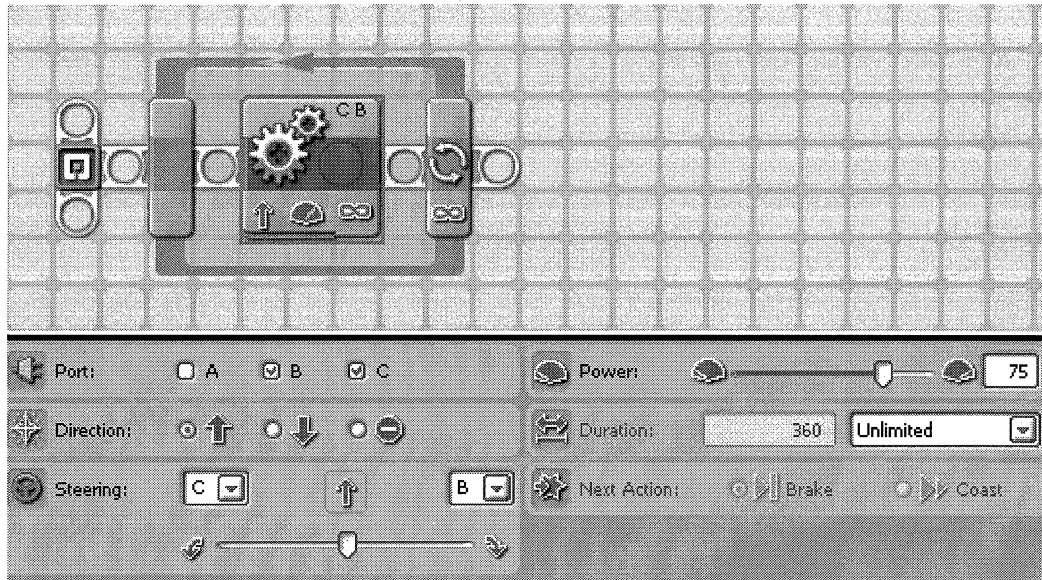
1. Place a loop on the bar and leave it at forever.



*This will make the loop repeat over and over.*

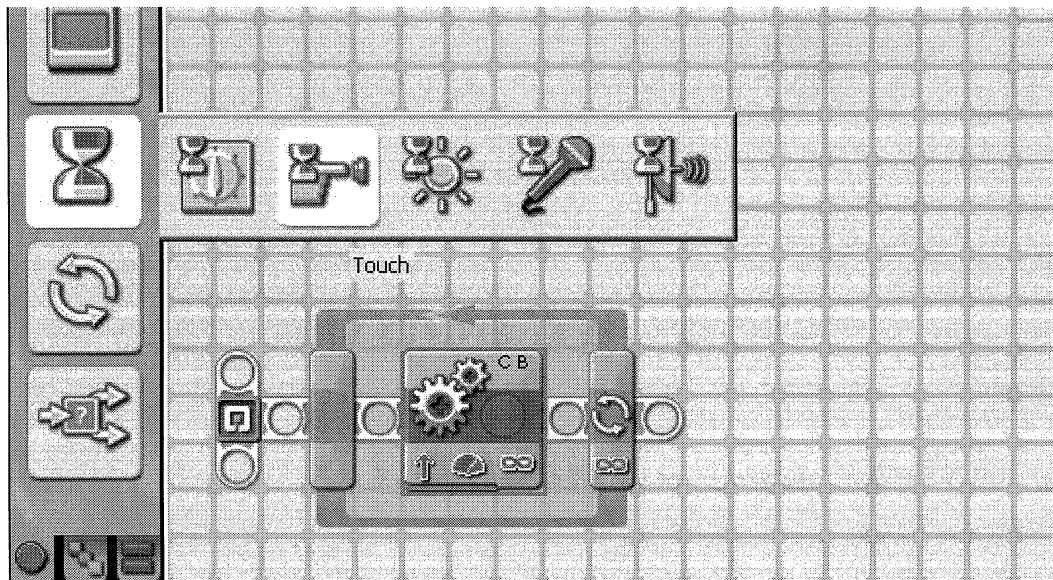
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2. Place a move block into the loop and set it at unlimited.



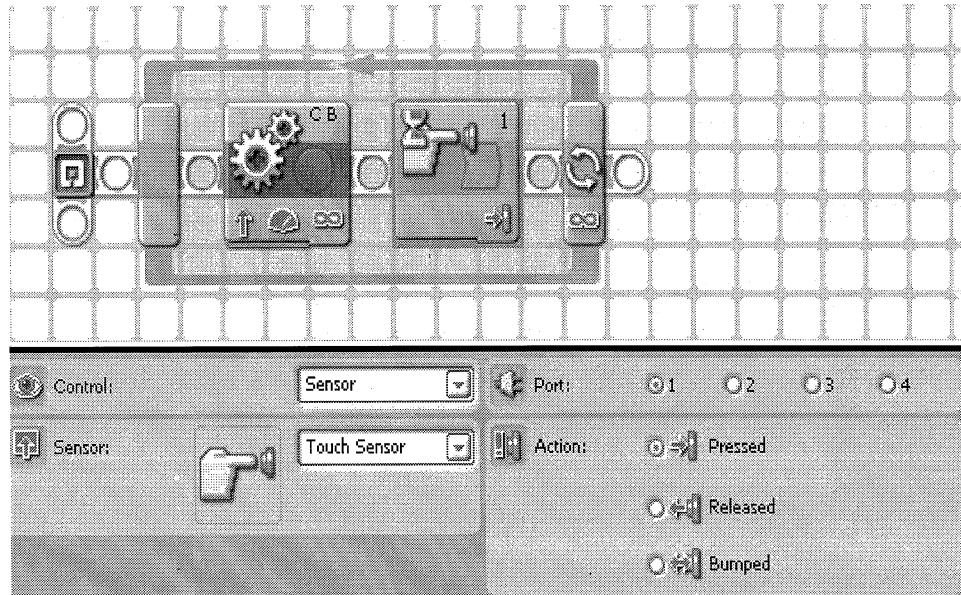
*This will make the robot move for an unlimited distance until the touch wait block tells the program to move on to the next block.*

3. Move the cursor over the wait block and a series of different types of blocks will open up. Pick the touch.



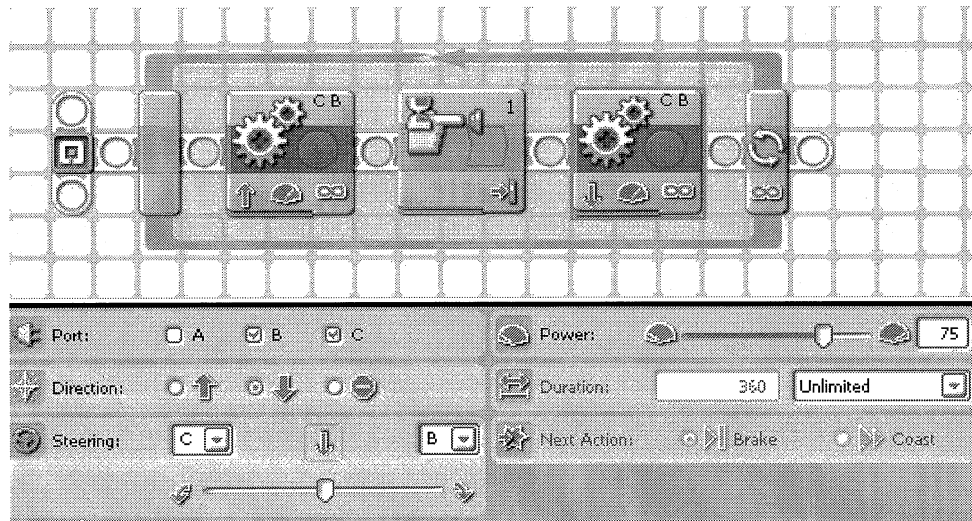
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4. Place a touch wait block on the bar and leave it at pressed.



*This makes the robot stop when the touch sensor is pushed and moves the program to the next block.*

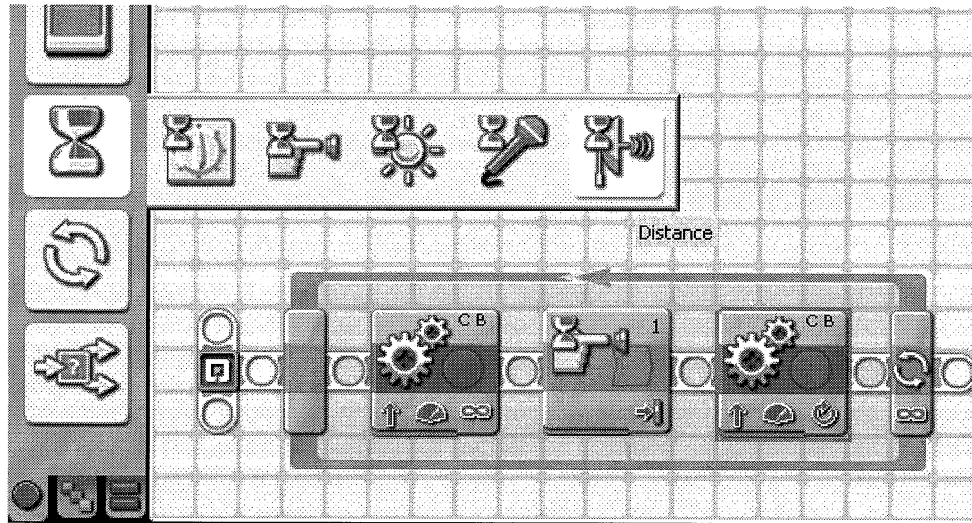
5. Place a move block on the bar and set it for reverse and unlimited.



*This makes the robot back up until it is told to do something else.*

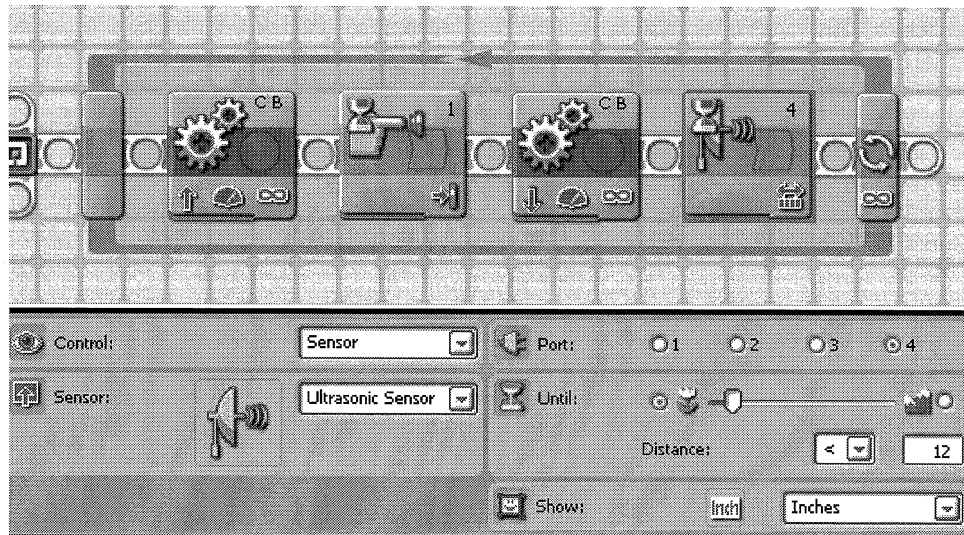
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6. Place your cursor over the wait block. A menu will open up. Pick the distance block.



*The distance block works with the ultrasonic sensor to judge distance by sending out an ultrasonic ping and measuring how fast it comes back and then calculates the distance.*

7. Place an distance wait block and set it for less than a foot.



*This will make the robot end the reverse move block when the robot moves to a distance less than one foot from the back wall. Then the loop will bring the program back to the beginning and the robot will move forward again until it hits a wall, back up until it gets less than one foot away and start the whole process over and over.*

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