

23 Stop on Gray

Mission: the robot will stop on the right gray square when presented with 4 different gray squares laid out in a line in any order.

Equipment:

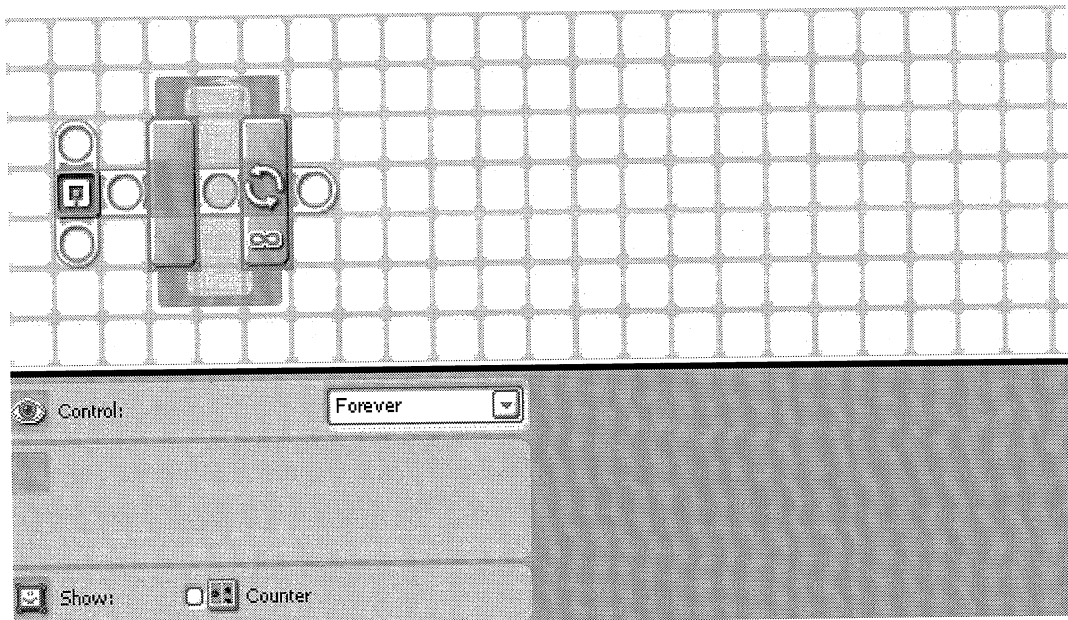
copies of the four gray squares following these instructions. (These gray rectangles are found after the directions. Copy them to use on the practice table. Put them under the clear plastic.)

Sensors:

light

Directions:

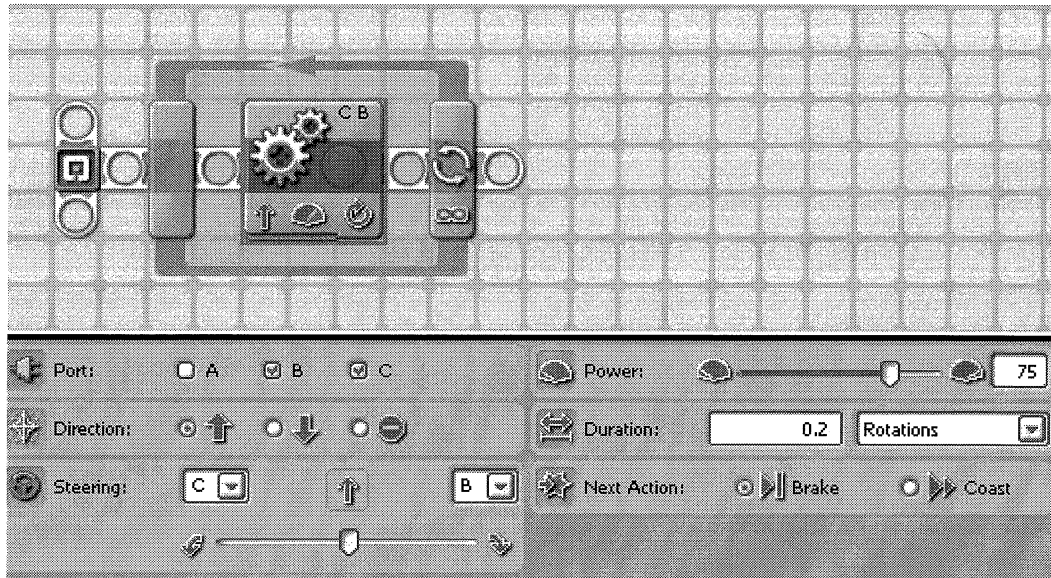
1. Place a wait block on the program bar. Leave it set for Forever.



This makes the program run over and over until the program is stopped by pushing the dark gray button.

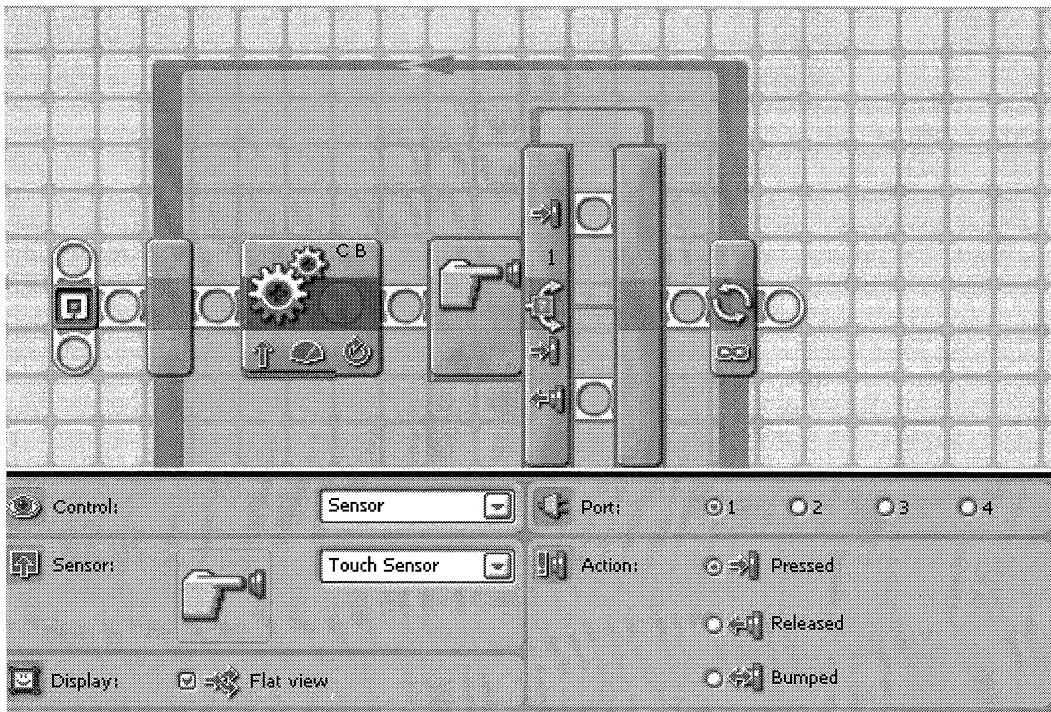
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2. Place a move block inside it and set the rotations to 0.2.



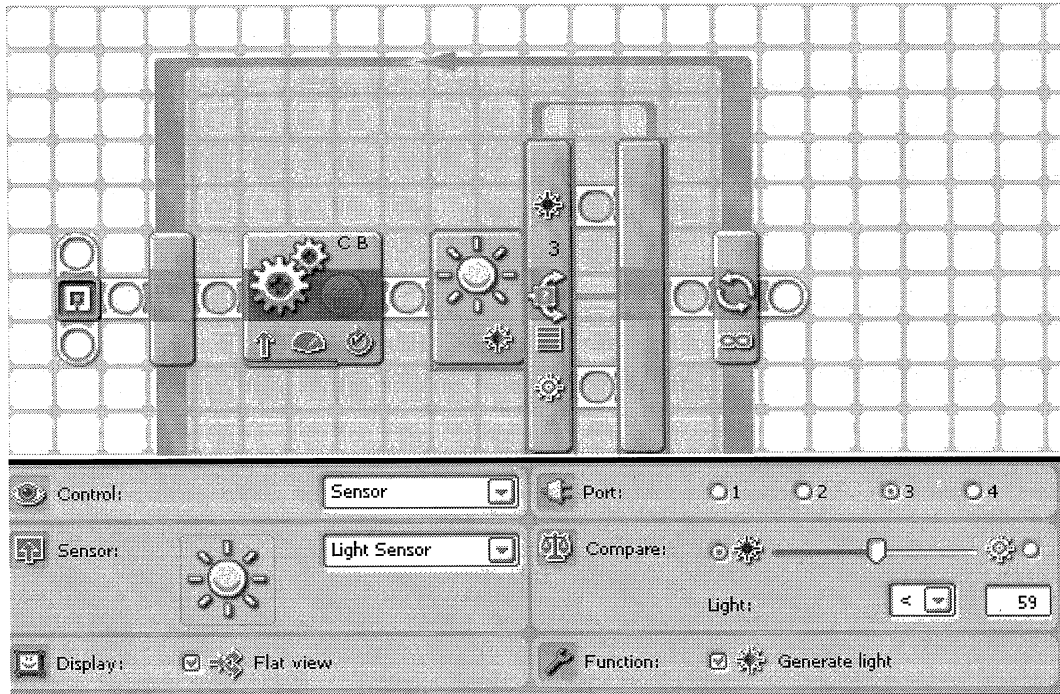
This gets the robot moving a short distance.

3. Place a switch block after the move block.



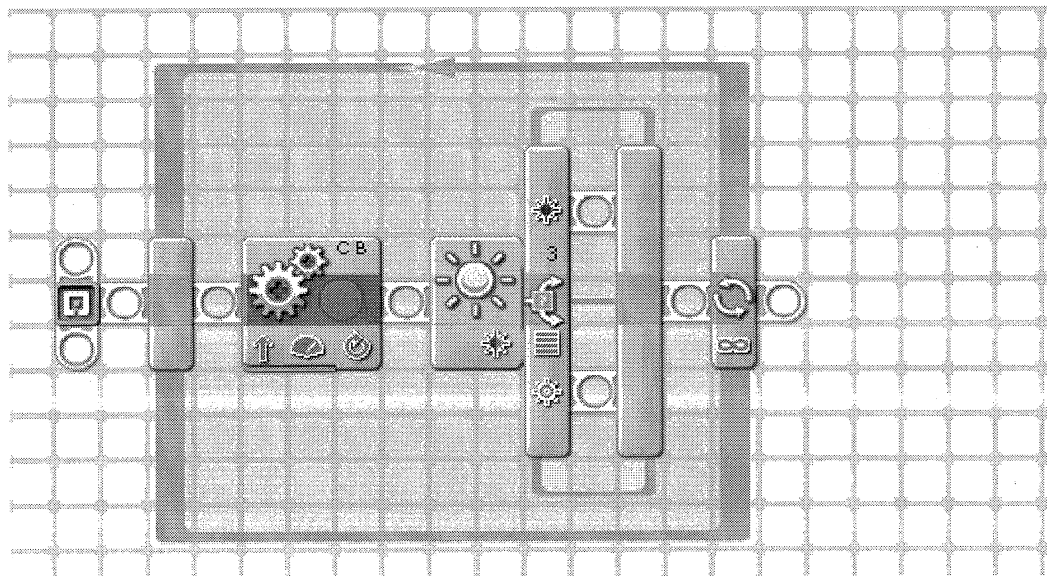
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4. Change the touch switch to a light switch and set to a few points above the reading of the gray square you want to stop on. It is 59 in this case. Yours will be different.



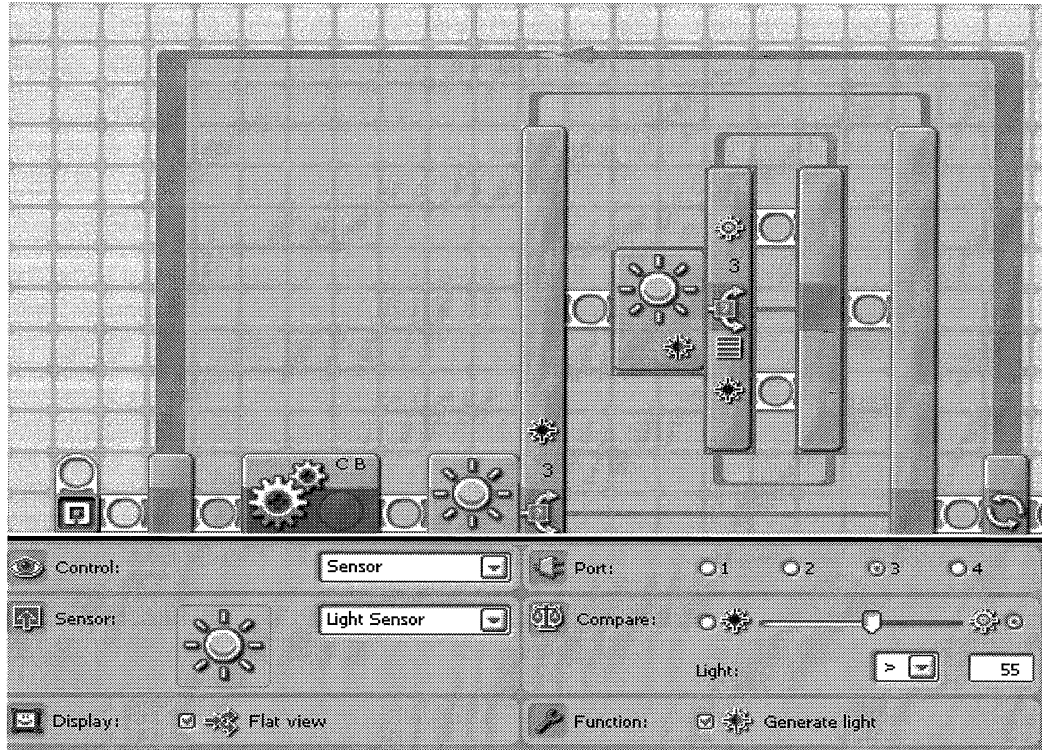
The light switch will make the robot ignore all gray rectangles that are brighter than 59.

5. The program so far will look like this.



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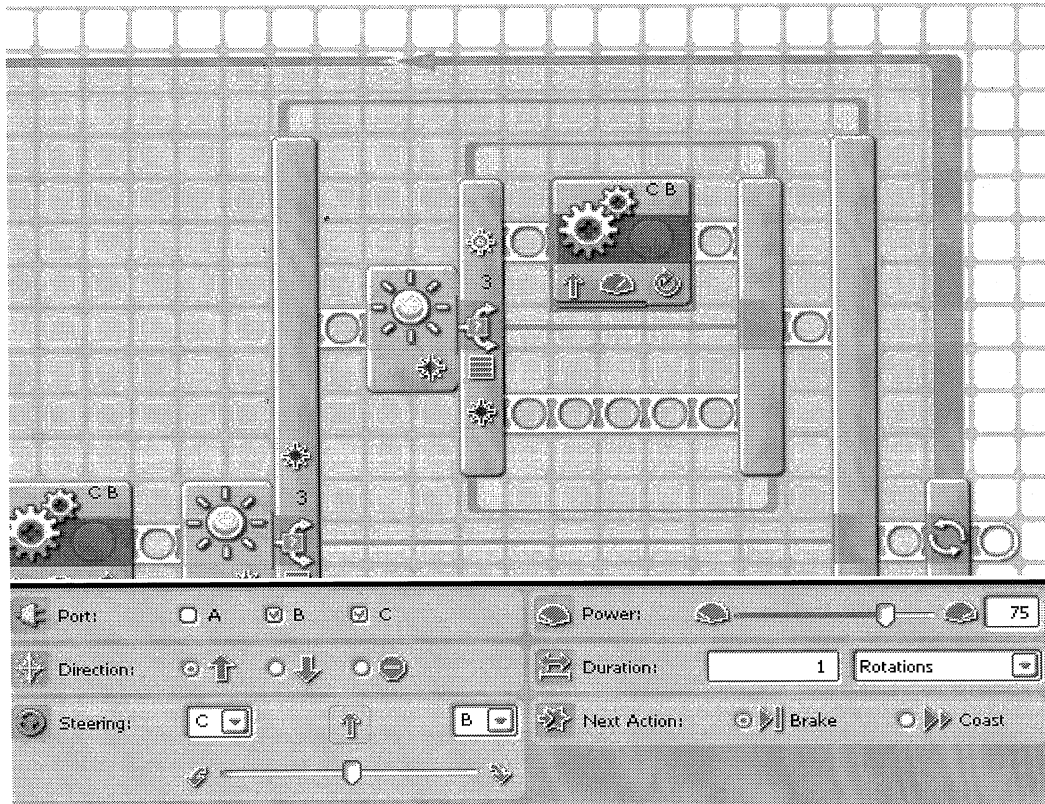
6. Place a switch inside the top bar. Set it a few points less than the reading of the gray square where you want the robot to stop. It is 55 points in this case. Yours will be different.



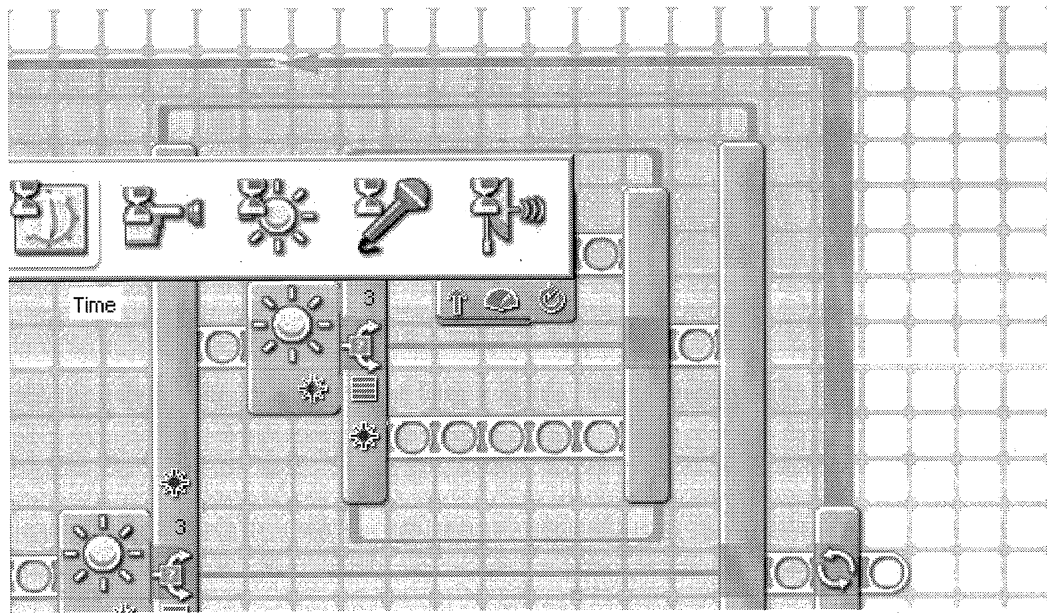
This switch tells the robot if the rectangle is just a few points less than the gray square you want. This eliminates the rectangles that are darker than the one you want.

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7. Place a move block and set it to 0.2 rotations.

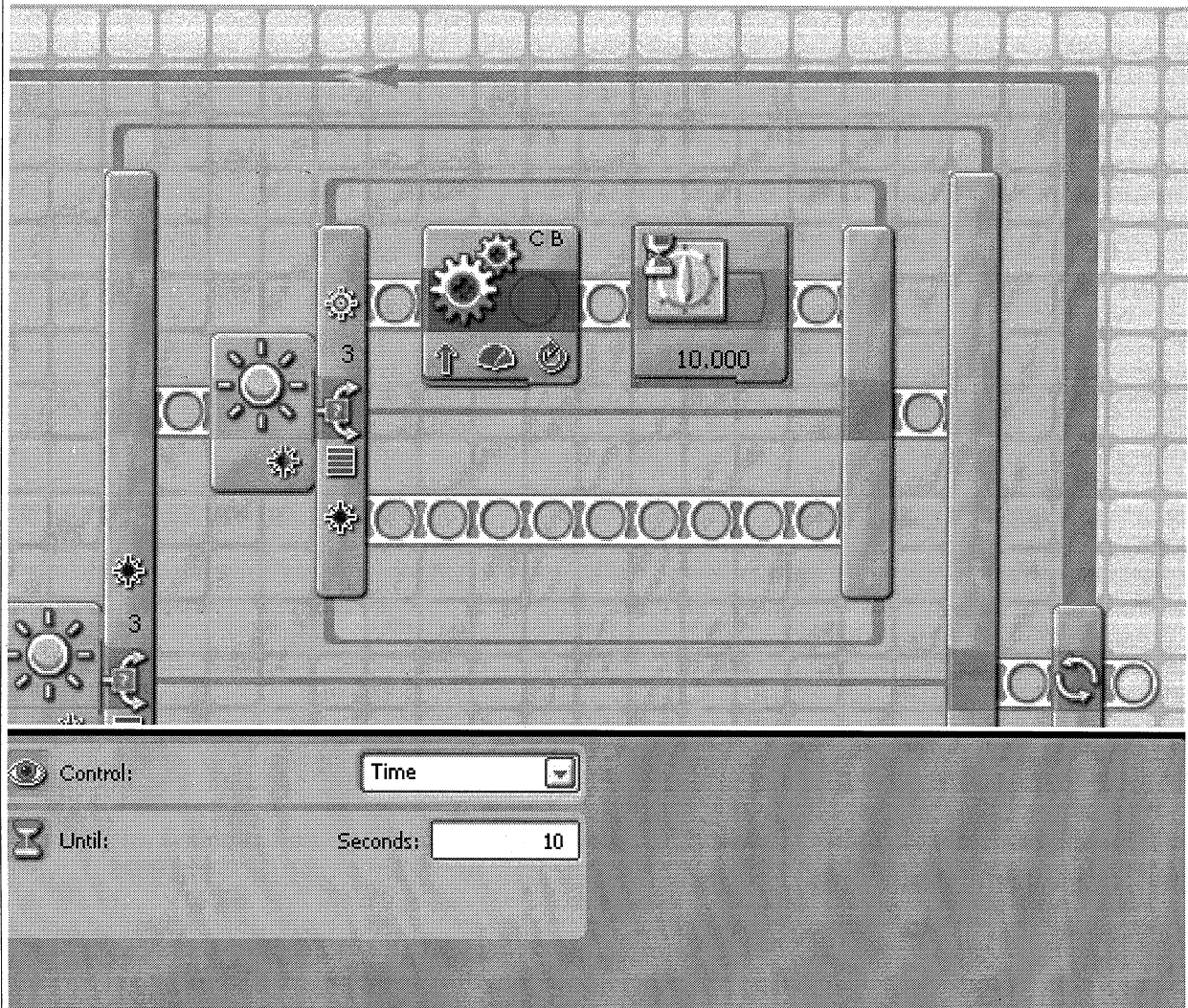


8. Place your cursor over the wait block and a line of various wait blocks will appear. Choose the time block.



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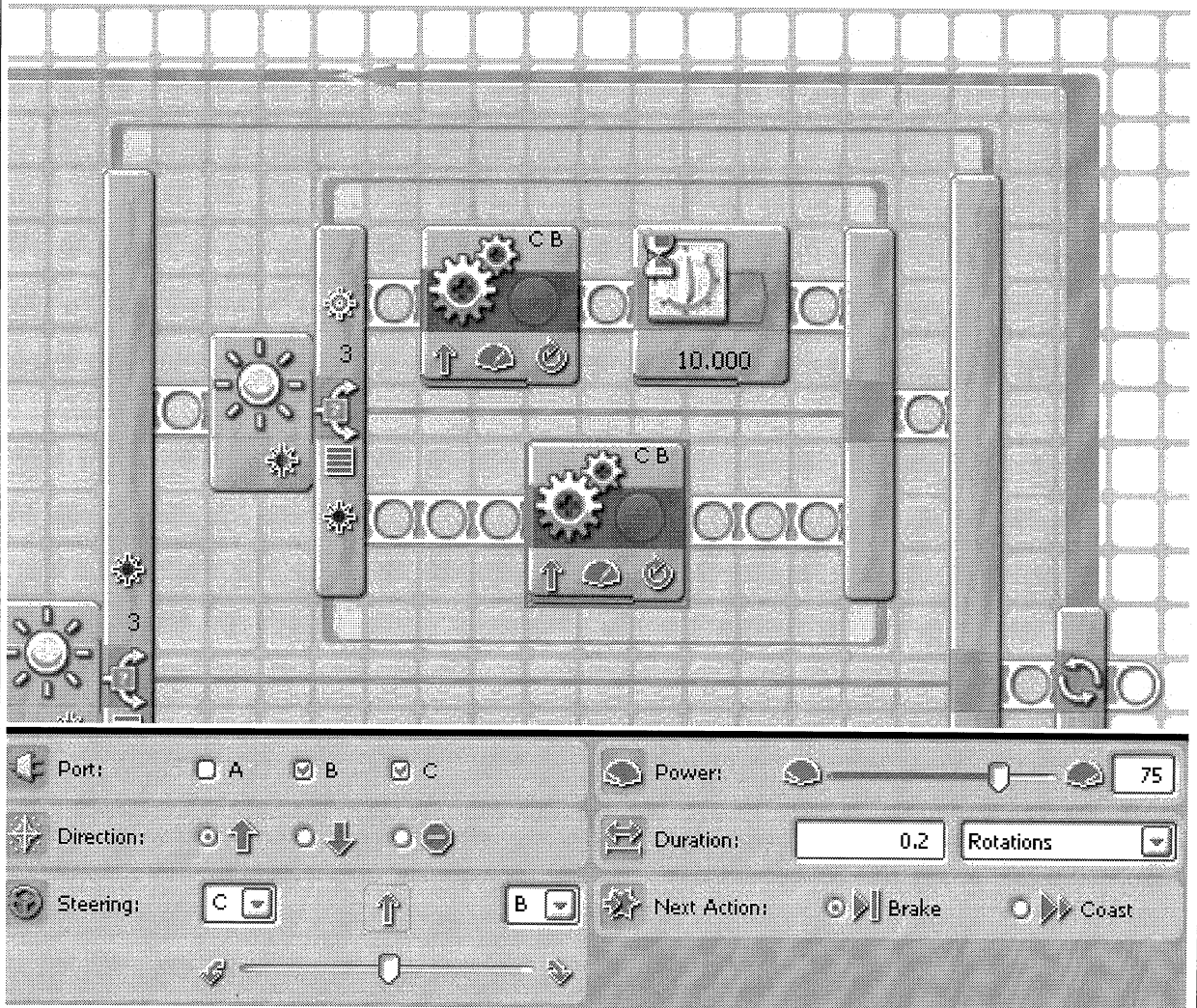
9. Place the time wait block. Set it to 10 seconds.



This makes the robot do nothing for 10 seconds which is long enough to grab it and stop the program.

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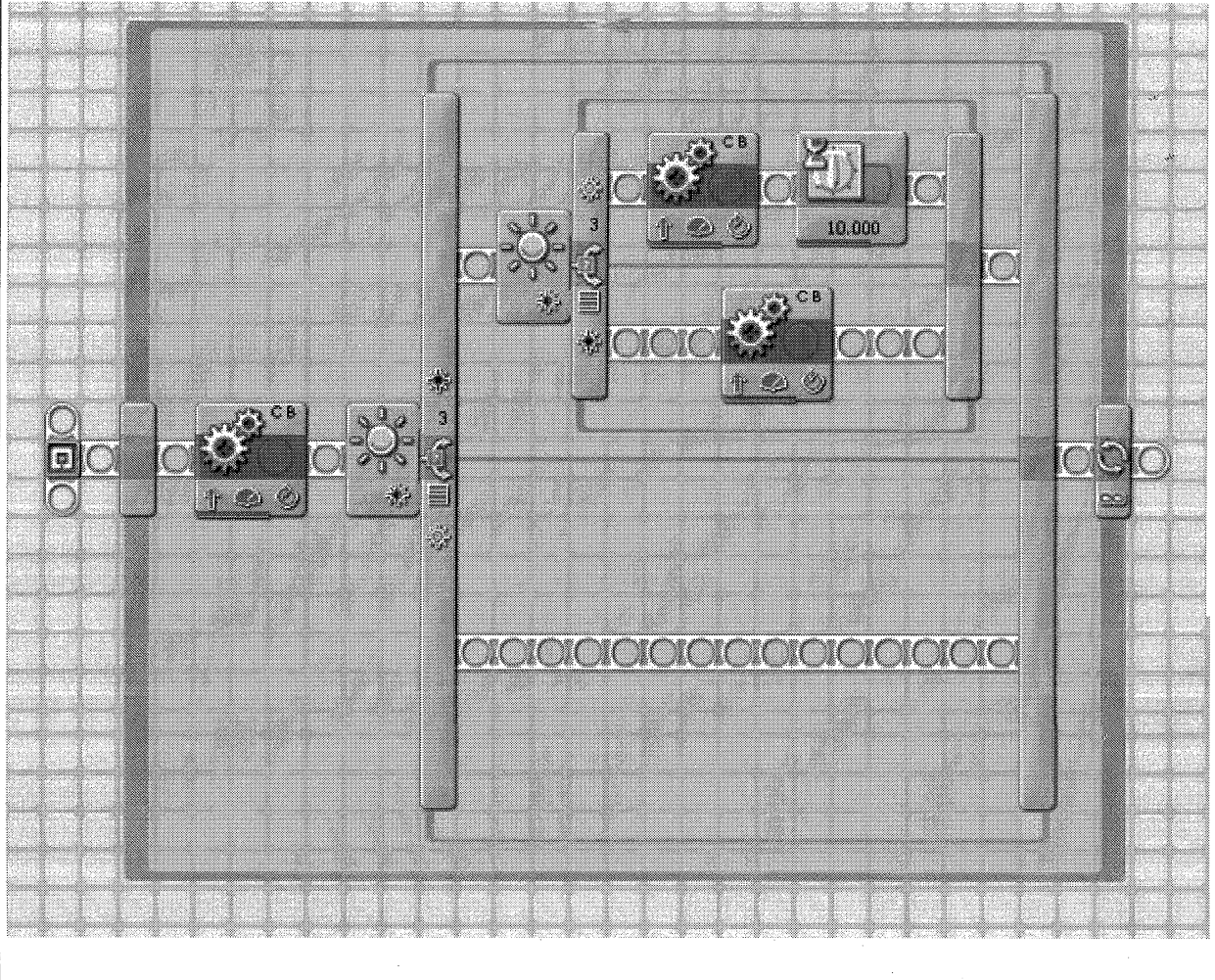
10. Put another move block below on the lower bar of the inside switch and set it to 0.2 rotations also.



This keeps the robot going if the gray rectangle is not light enough to stop on here.

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11. The whole program should look like this.



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