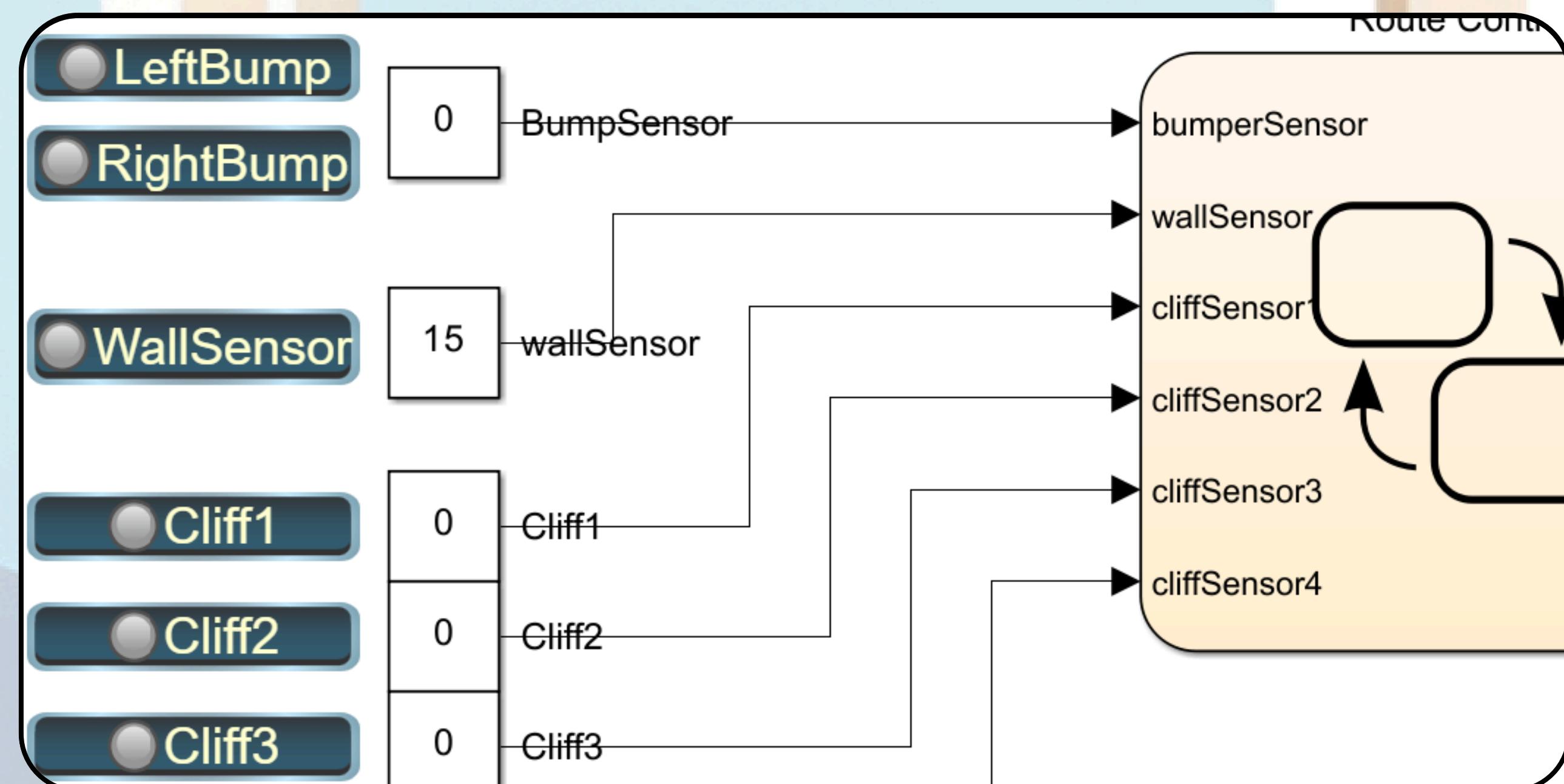
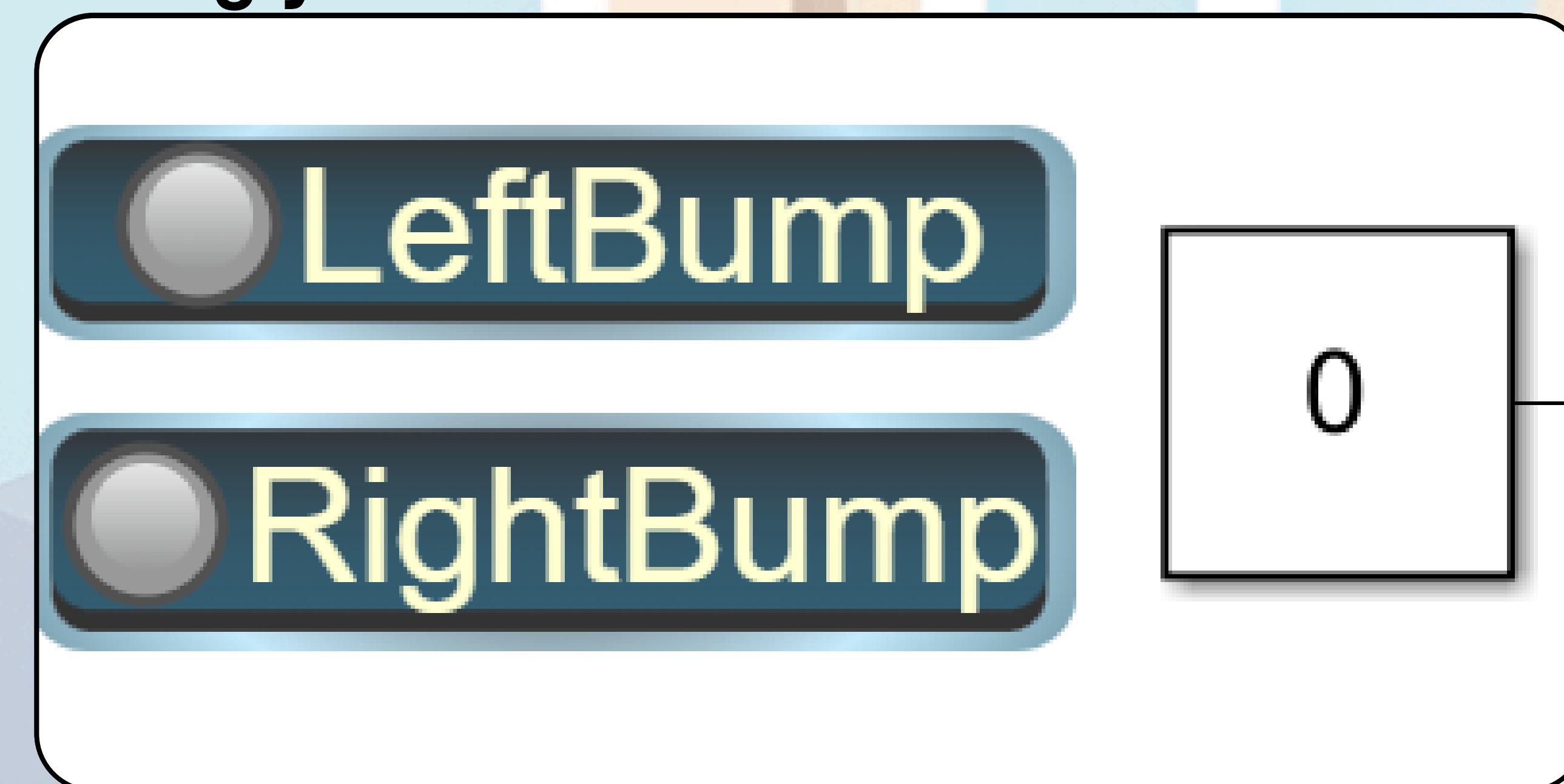


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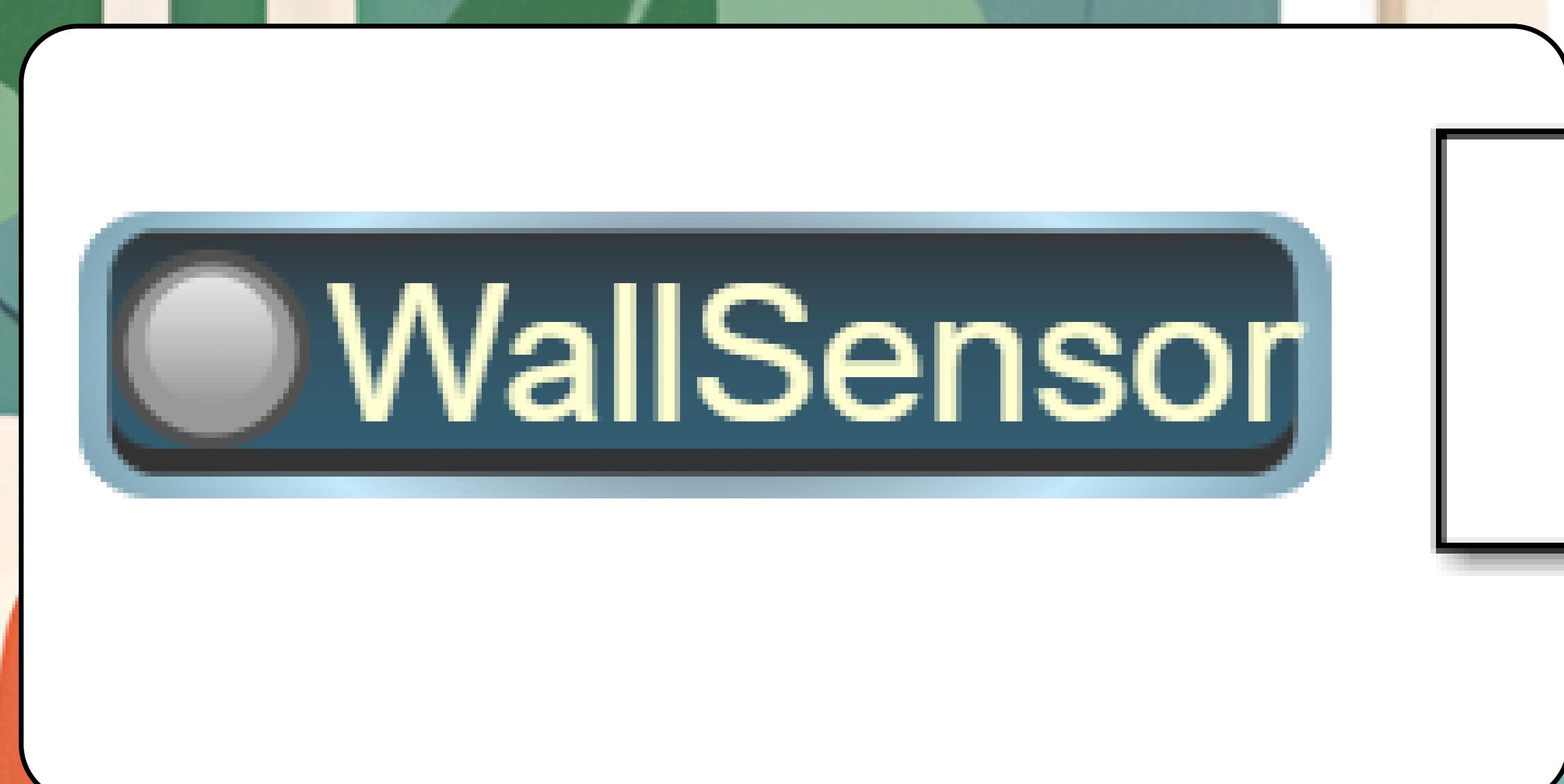
The advent of robotics in household applications has significantly improved daily living convenience, with robotic cleaners being at the forefront of this technology.



Three different types of sensors in this robot



There are two bump sensors embedded into the robot to aid in detecting any collisions with obstacles. They are located on the left and right sides of the robot to ensure a wider range of detection of obstacles. When clicked, the robot will rotate 45° away from the obstacle.



One wall sensor is implemented in the robot and is activated when the threshold is above 10 causing it to rotate right. This is done by estimating the distance between the robot and the object.



To be able to detect the absence of obstacles at close range four cliff sensors are added. When the user clicks these buttons, the robot will pause for a couple seconds and reverse backwards and carry on following the plotted trajectory. Reversing the robot will ensure that the robot avoids the obstacles efficiently.

