UPPSALA
UNIVERSITET

Model Based Design of Embedded Systems
1DT059
Report 2B

Simulink Matlab

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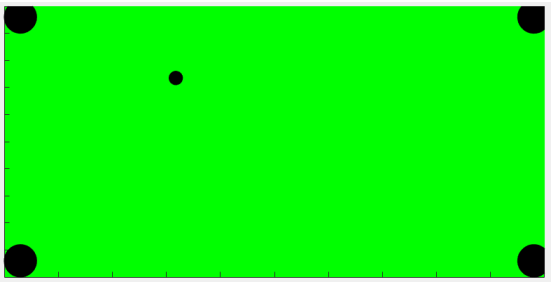
Billiard Ball:

A billiard table of dimensions 10x20 has been designed on which if a ball has been placed it will bounce off the walls and move over the table. The table has 4 holes in the corners where if the ball enters the ball stops. Animation has been added to show the movement of the ball.



Elevator Controller:

An elevator has been designed to move between 4 floors named 1,2,3,4. Buttons have been placed to trigger events for each floor. A light has been placed which indicates which floor button has been pressed, and this goes off when the lift reaches the floor. Once the lift reaches the floor it opens the door and the door remains open for 5 seconds. The door is designed in a way that the lift will not move unless it has been closed. The speed of the elevator is a constant 0.2floors/sec. The elevator sends its position to the controller based on which the controller stops or moves the lift. There is also an emergency button which when pressed stops the lift in whichever floor it was last present and it starts again when the start button has been pressed. Animation has been added where we can see the lift move between floors. The user can interact with the controller by using the buttons.