Logisim Design

Matthew Mendoza

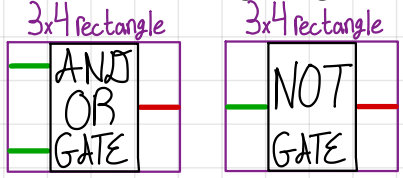
09/11/2019

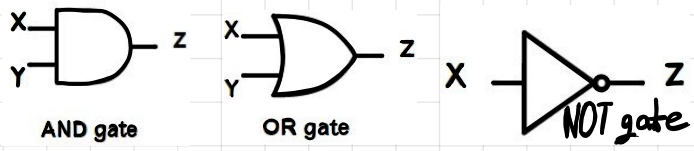
Logic Gates

Gates should populate a 3x4 rectangles grid area.

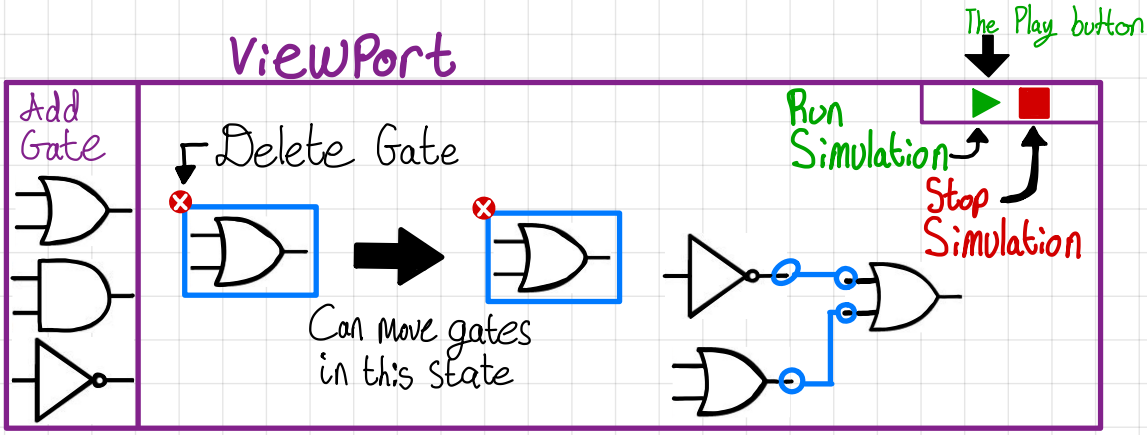
= Input Leads

= Output Leads



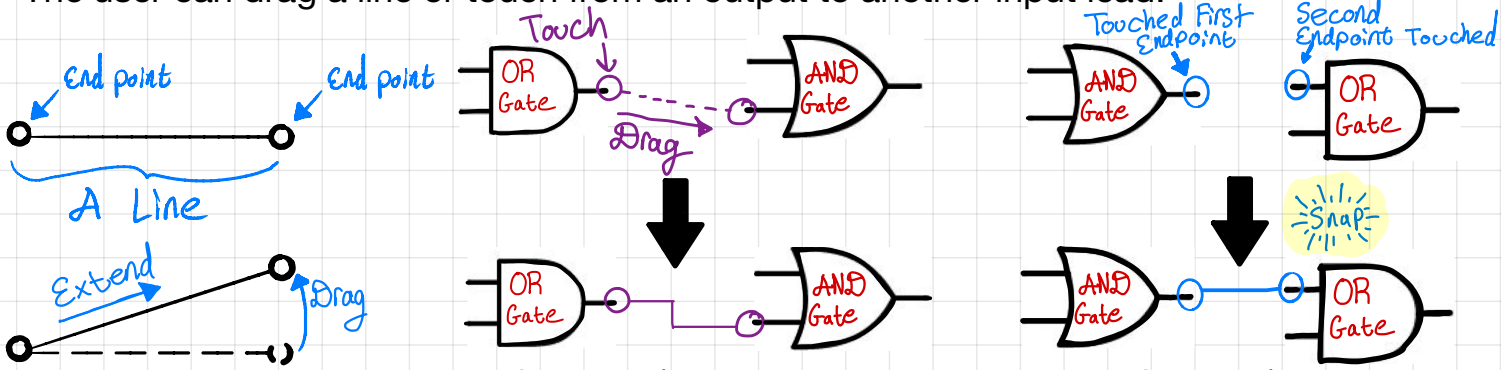


User can add gates from a side pannel, remove gates by touching and holding, connect gates by touching an output lead to another input, run the simulation by a play button.



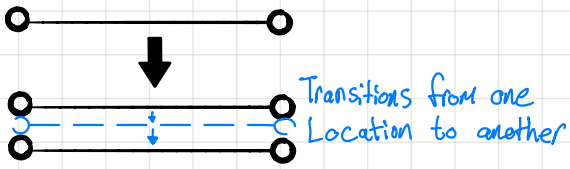
Lines/Lanes

The user can drag a line or touch from an output to another input lead.

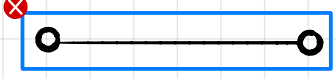


The user can touch the center of the line (or touch and hold the center of the line) and can move the entire line (including the endpoints). When touch and held the line will be bordered where one can delete the line.

Touch, hold, and drag entire line



Touch and hold line
Delete line



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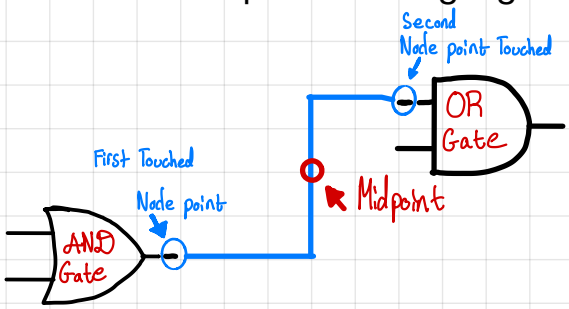
Moving Logic Gates

Logic gates can be moved by touching/holding the respective logic gate and drag from point A to point B.

If circuits are mapped to the gates and is then moved the respective circuits to those gates will extend/shrink to the corresponding location of the logic gate.

The circuits that are mapped to the logic gates should make a linear horizontal path to the destination; otherwise, they will extend horizontally and at mid-point of the line make a vertical line up or down to the vertical distance from the source and then continue a horizontal path to the destination input of the logic gate.



Circuit Line color and Node Points

The color of the of the circuit path should be white when matching outputs to inputs; however, when the user presses “Play” (make the circuit live) the line will then become green.

Node Points are the head to the respective input or output of the logic gates. By which when selected (touched on) a green circle at the tail end of the input/output lead will appear.