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The Virtual Learning Environment for Computer Programming

Stairwell   X89209_en

An open stairwell has four floors amd one switch per floor to control the light. If all switches are off, the light is off; any single change in the position of any switch changes the state of the light. Design a circuit the controls the light based on the position of the four switches.

Specification

> **module** *stairwell*(*switches* , *light*);
>   **input** [3:0] *switches* ;
>   **output** *light* ;

Input

- *switches* represents the state of the four switches (1 when "on" and 0 when "off").

Output

- *light* controls the state of the light (1 when "on" and 0 when "off").

Problem information

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