Sequence 110 X02122_en

Design a sequential circuit with one binary input and one binary output. The output must be 1 at cycle i when the inputs at cycles $i-2$, $i-1$ and i are 110, otherwise the output must be 0.

Specification

module *find110*(*in*, *out*, *clk*, *rst*);
    input *in*, *clk*, *rst*;
    output *out*;

Hint

The state machine can be implemented with 3 states.

Input

- *clk* is the clock signal
- *rst* is the synchronous reset signal.
- *in* is the binary input.

Output

- *out* is the output that behaves according to the specification.

Problem information

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