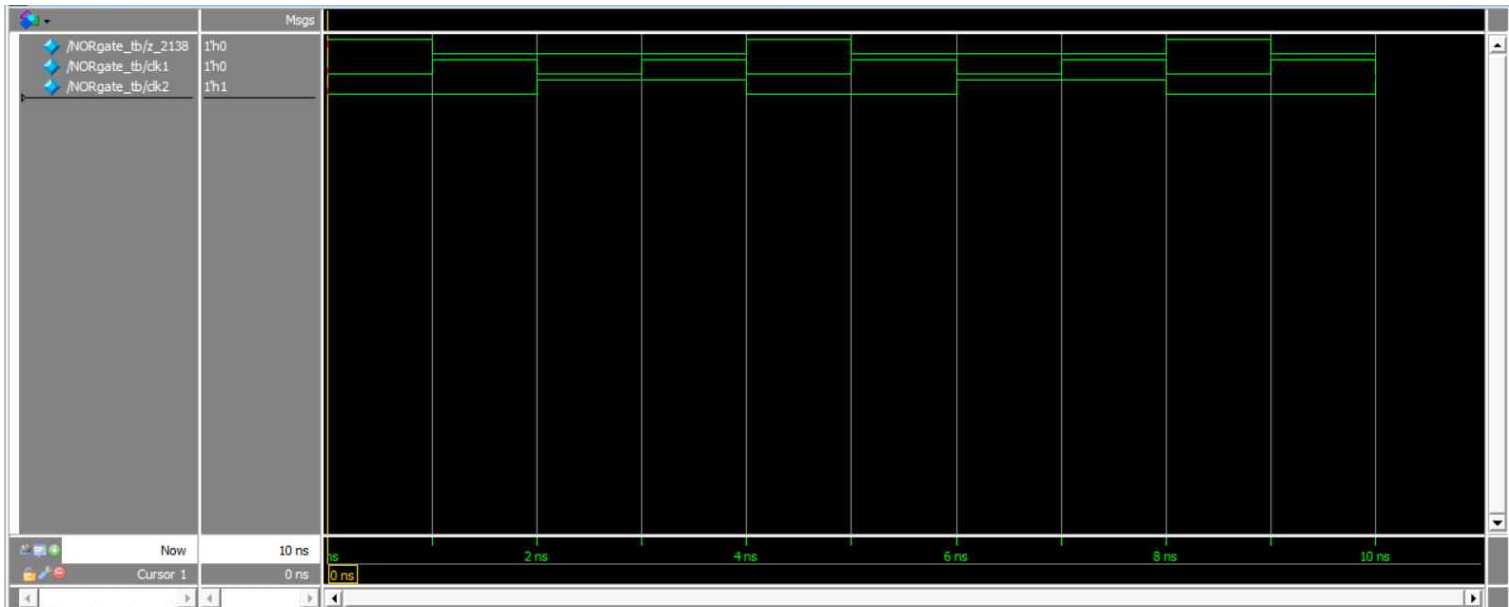


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File Name : `NORgate.v` // be defined physically

```
module NORgate (a,b,z);  
    input a,b; // define input a and b.  
    output z; // define output z.  
  
    assign z= (~a)&(~b); // NORgate can be indicated by (~a)&(~b)  
  
endmodule
```

File Name : **NORgate\_tb.v** // be defined logically

```
module NORgate_tb();
    wire z_2138; //one output wire : z_2138
    reg clk1,clk2; //two input reg : clk1, clk2

    NORgate u1 (clk1,clk2,z_2138); // be defined physically

    initial begin
        clk1=0; //clk1 and clk2 initializes as '0'
        clk2=0;
    end

    always begin
        #1 clk1=~clk1; //clk1 is turned to inverse every 1ns
        #1 clk2=~clk2; //clk2 is turned to inverse every 2ns
        clk1=~clk1;
    end
end
endmodule
```