

```
timescale 1ns / 1ps
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
// Company:
// Engineer:
//
// Create Date: 12/08/2020 04:25:09 PM
// Design Name:
// Module Name: Led_Selector
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
//
// Dependencies:
//
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
```

```
module Led_Selector(
    input clk, qsec,
    input in, prime, nprime, div, working,
    output [15:0] ledin
);

    wire [8:0] temp;
    wire [6:0] unused;
    wire [15:0] inputled;
    assign unused = 7'd0;
    assign inputled = {temp[8:0],unused[6:0]};
    wire [15:0] primeled;

    LED_Input_Control InputLED(.clk(clk), .CE(qsec), .out(temp));
    LED_Prime_Control PrimeLED(.clk(clk), .CE(qsec), .out(primeled));

    assign ledin = (inputled[15:0]&{16{in}}) |
                   (primeled[15:0]&{16{prime}}) |
                   (16'hFFFF&{16{nprime}}) |
                   (16'd0&div) |
                   (16'h0001&{16{working}});

endmodule
```