

```
1  `timescale 1ns / 1ps
2  //*****//
3  //
4  // Class: CECS 360
5  // Project name: Project1_CECS360
6  // File name: Display_Controller.v
7  //
8  // Created by Umar Khan 09/19/2017
9  //
10 // Abstract: This is the 7 segment display module consisting of
11 //           led_clk, led_controller, ad_mux, and hex_to_7seg
12 //
13 //*****//
14 module Display_Controller (clk, reset, anode, seg, a, b, c, d, e, f, g);
15     input          clk, reset;
16     input          [31:0] seg;
17
18     output         [7:0] anode;
19     output         a, b, c, d, e, f, g;
20
21     wire           led_cout;
22     wire           [2:0] sel;
23     wire           [3:0] y;
24
25     led_clk         a1(clk, reset, led_cout);
26
27
28     led_controller  a2(led_cout, reset, anode, sel);
29
30
31     ad_mux          a3(sel, seg[31:28], seg[27:24], seg[23:20],
32                      seg[19:16], seg[15:12], seg[11:8], seg[7:4],
33                      seg[3:0], y);
34
35     hex_to_7seg     a4(y, a, b, c, d, e, f, g);
36
37 endmodule
38
39
```