Pre-Lab 7

```
module UpControl( x , Load, New);
    input [2:0] x;
    output [2:0] New;
    output Load;
    always @(* );
    begin
        Load = 0;
        if (x == 5)
            Load 1;
            New = 3'b 001;
    end
endmodule
```

```
module DownControl (x, Load, New);
    input [2:0] x;
    output [2:0] New;
    output Load;
    always @ (*);
    begin
        Load = 0;
        if (x == 1)
            Load = 1;
            New = 3'b 100;
    end
endmodule
```

```
module WinLose ( x, y, stop, win, lose, signal);
    input [2:0] x;
    input [2:0] y;
    input stop;
    output win, lose, signal;
    assign signal = !stop;
    always @ (*);
    begin
        if(!stop)
            begin
                win = 0;
                lose = 0;
            end
        else if(stop & x==y)
            begin
                win = 1;
                lose = 0;
            end
        else if( stop & x!=y)
            begin
                win = 0;
                lose = 1;
            end
    end
endmodule
```