



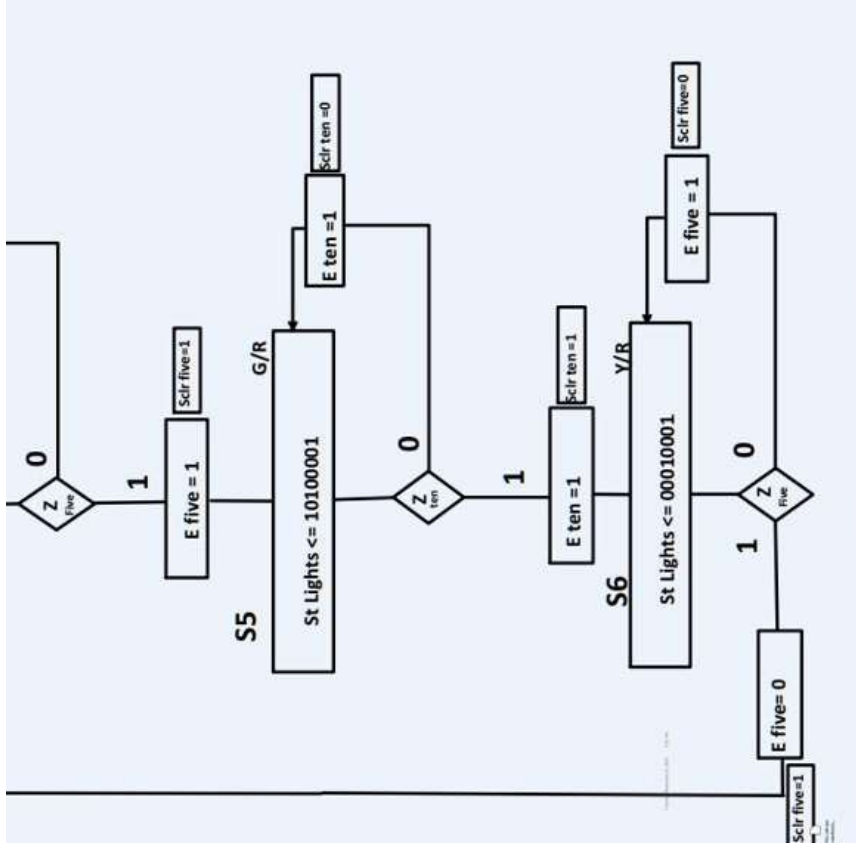
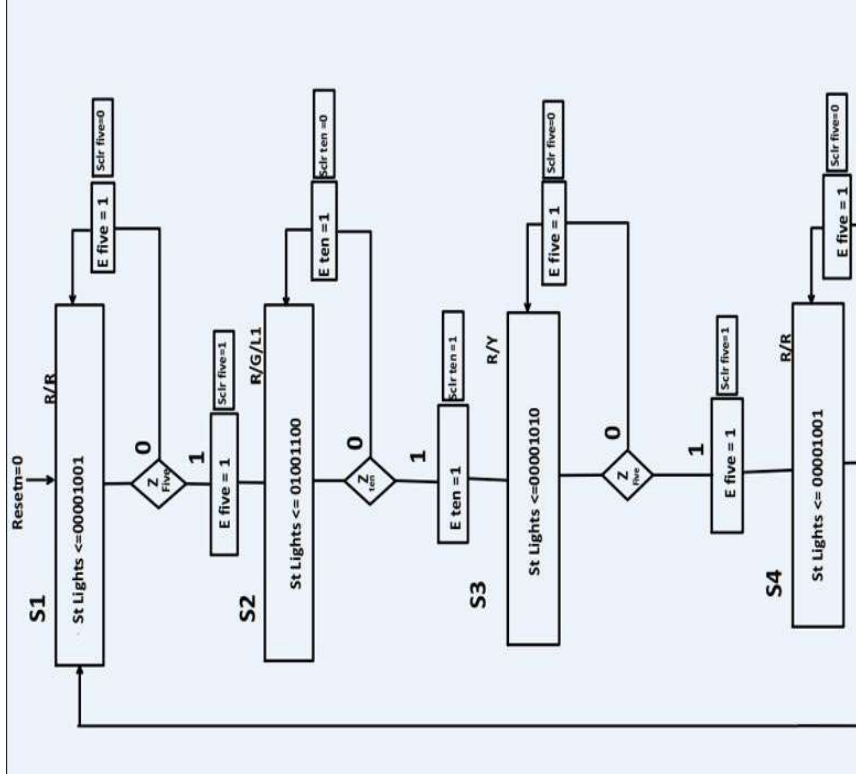
4-Way Traffic Light Controller

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Description

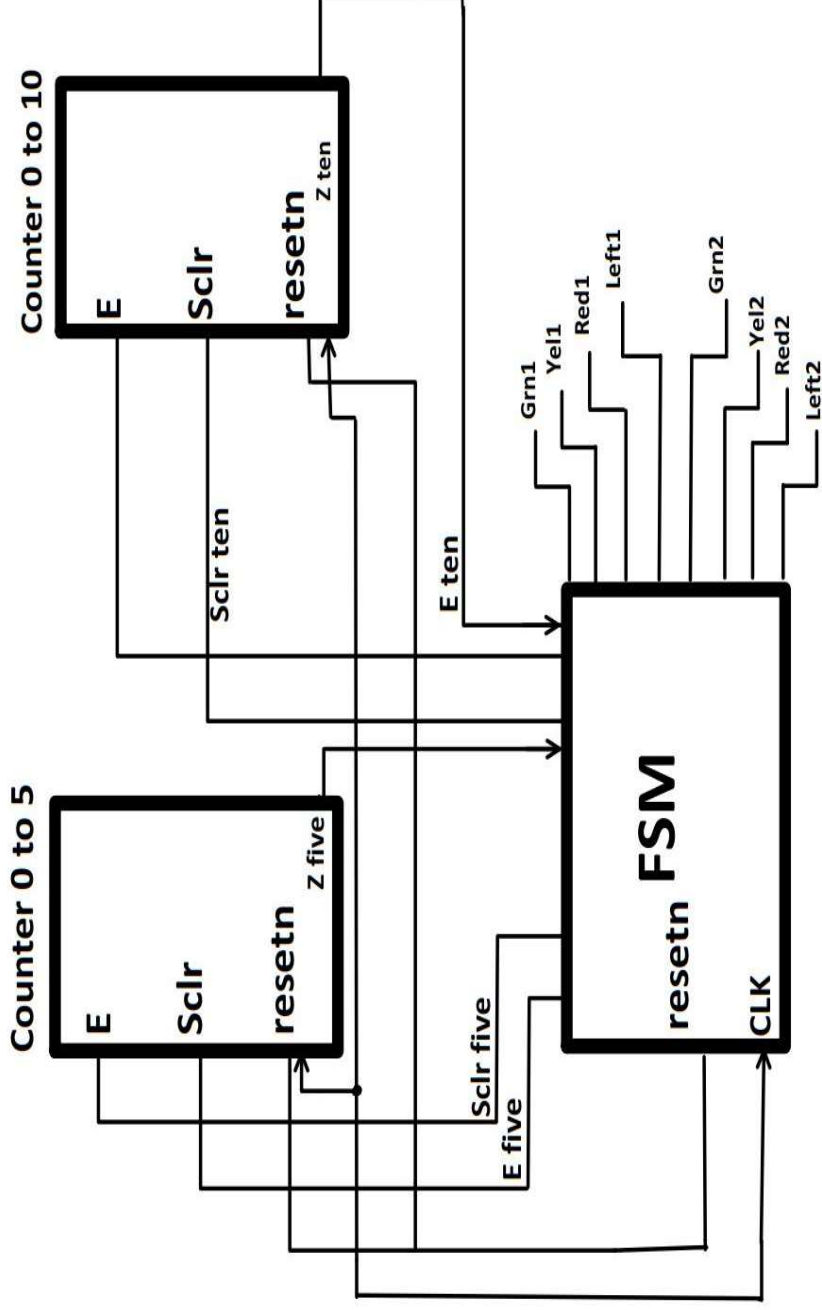
- This traffic light controller is formed as an architecture based system.
- The circuit design includes a finite state machine with 2 counters and 6 states.
- The main part of the code is within the FSM's transition and output processes.
- The external interface includes 2 FPGA boards, 4 breadboards, and a multitude of red, green, yellow, and blue LED's.
- The controller will act as a continuous 4-way traffic light that has a left turn signal demonstrated as a blue light.
- The counters will delay the time for the green and blue lights to turn yellow by 10 seconds.
- The yellow and red lights will be delayed for 5 seconds until they move to the next state.

FSM diagram

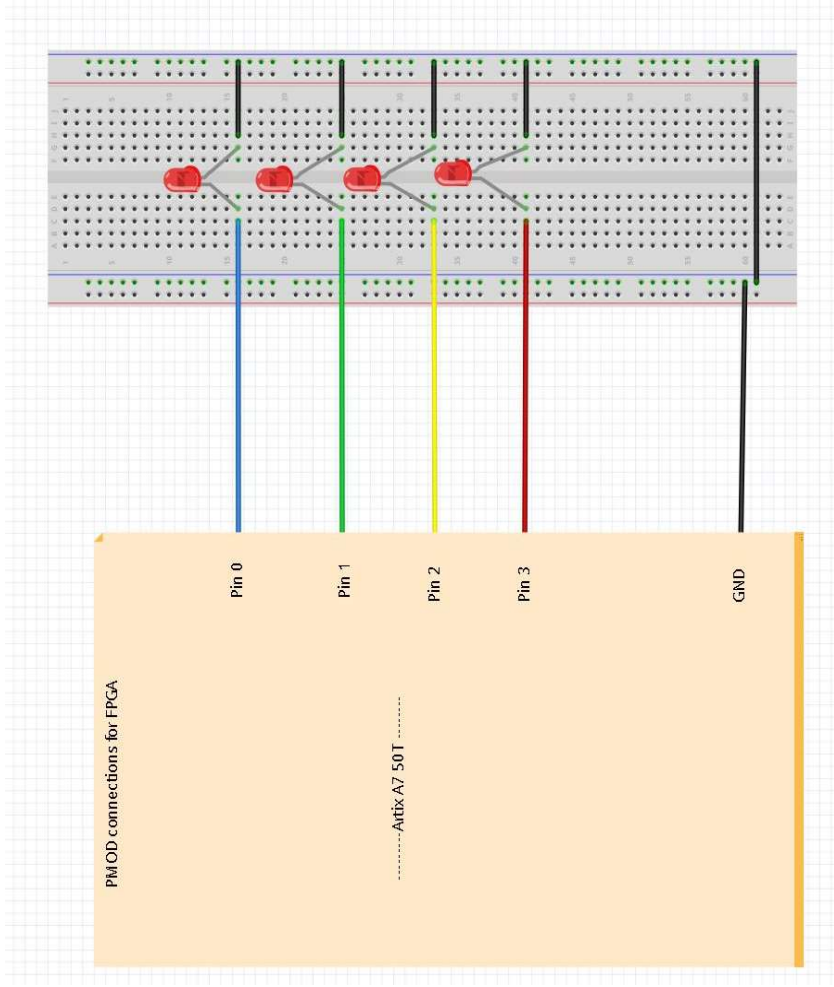


Circuit

4 way traffic light controller



Circuit Wiring



Data pins

3.3V	GND	3	2	1	0
3.3V	GND	7	6	5	4

Video

https://www.youtube.com/watch?v=7_1gubxKNp4

