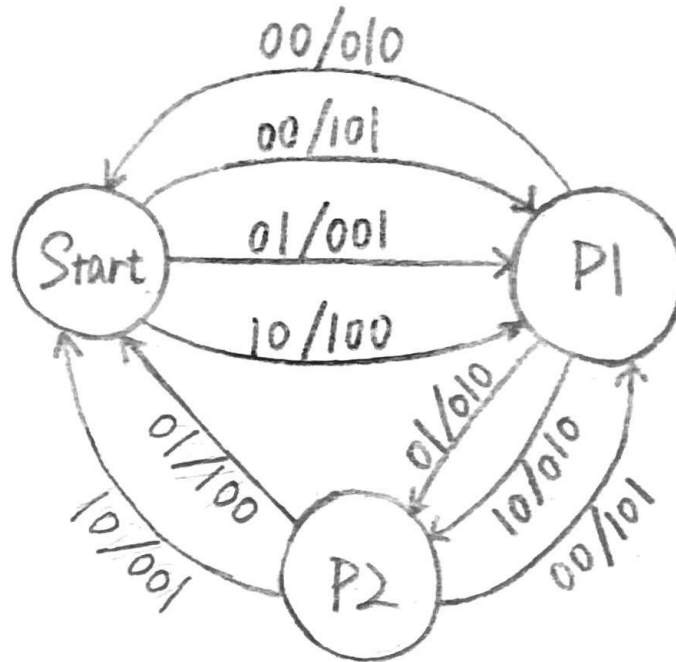


## Lab 5 Report

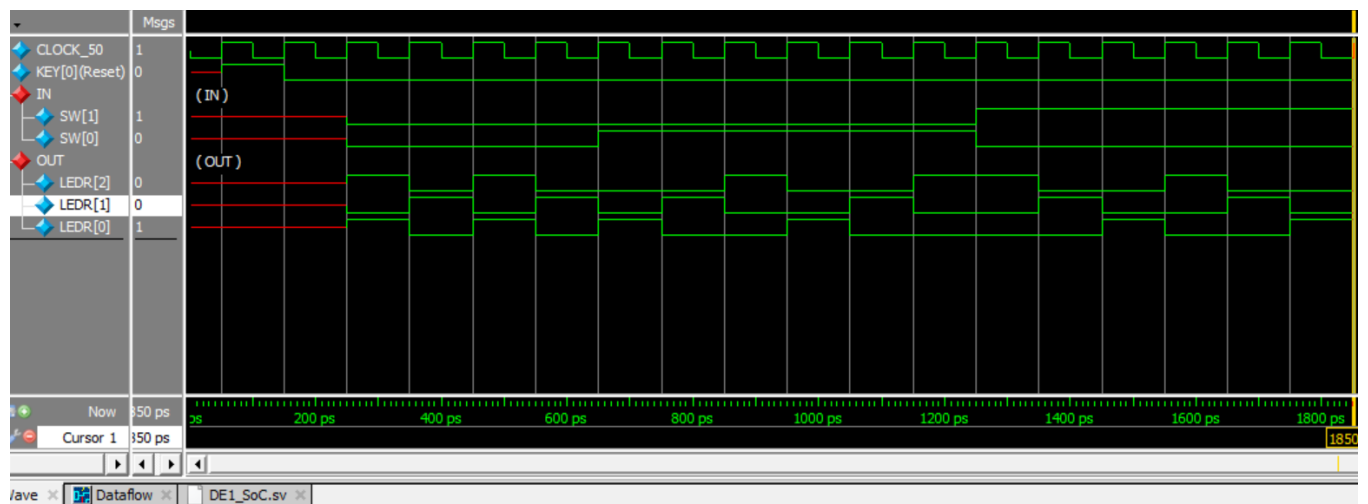
### 1. Video demo option:

[https://drive.google.com/file/d/13sd6tvvy8AI\\_4tu9POUu4ai-kCAscjQEm/view?usp=sharing](https://drive.google.com/file/d/13sd6tvvy8AI_4tu9POUu4ai-kCAscjQEm/view?usp=sharing)


### 2. A drawing of your state diagram used to implement the runway lights



### 3. Screenshot of ModelSim simulation of your top-level entity (DE1\_SoC) demonstrating runways lights circuit behavior for all 3 possible wind conditions.



4. Screenshot of “Resource Utilization by Entity,” along with the computed size of your design.

Analysis & Synthesis Resource Utilization by Entity			
 <<Filter>>			
	Compilation Hierarchy Node	Combinational ALUTs	Dedicated Logic Registers
1	▼  DE1_SoC	5 (0)	2 (0)
1	hazard_lighthl	5 (5)	2 (2)

$$\text{Size} = 5 + 2 = 7$$

5. Approximately how much time did you spend on this lab (including reading, planning, design, coding, debugging etc.)?

6 hours.