**Week 2 Problem Analysis – Algorithmic Thinking Exercise 2 [5pts]**

**Traffic Signal Controller**

Design an algorithm to decide which lights should turn green/red next.

Assumptions:

* This is a 4-way intersection with 8 sets of lights
  1. For going north (N)
  2. For going south (S)
  3. For going east (E)
  4. For going west (W)
  5. For north-bound turning left (NL)
  6. For south-bound turning left (SL)
  7. For east-bound turning left (EL)
  8. For west-bound turning left (WL)
* Your system can use any information such as the time of the day.

Your algorithm should state clearly what information your program uses to decide which lights become green/red next.

**Group member names:**

**Detailed Algorithm in English:**

**Which ones(1-8) are green at first?**

**Which ones (1-8) will become green next? And then?**

**For your algorithm, when is it safe for pedestrians to cross?**

**State why you decided to take this approach – i.e. the goal such as less wait time, etc.:**

**State problems or disadvantages:**