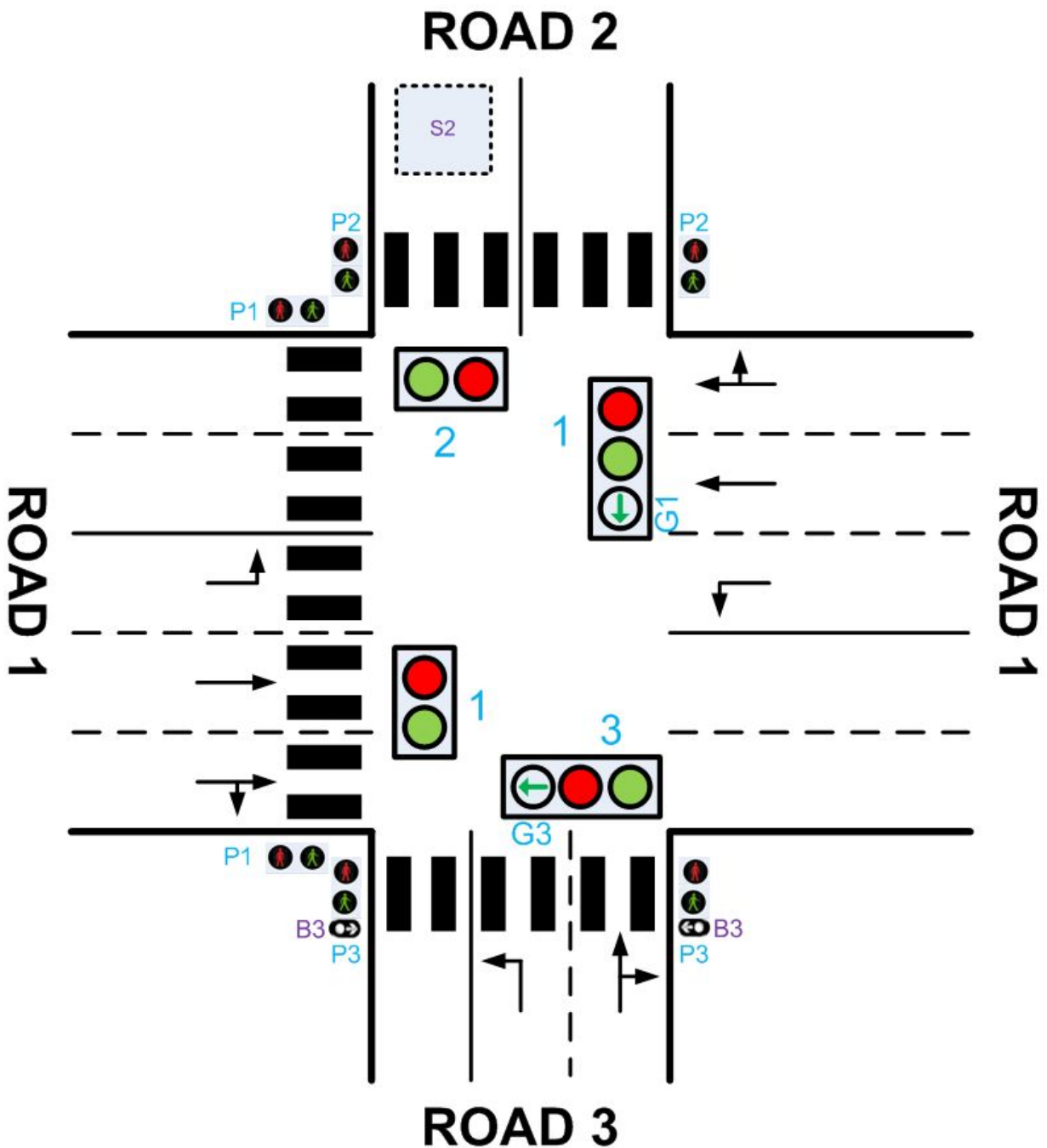


Lab 2: TEAM NAME

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Downtown. Looking for a more intelligent light form.

Our task, if we choose to accept it is to create the light control software. (TLMS software, traffic light monitoring system) In the diagram above, Road 1 and Road 3 are primary roads, and Road 2 is a secondary road

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= Definitions =
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Day: the time period from 0600-2200 hours
 Night: any time that is not Day
 Reset button: button that clears m flag

```

=====
= Inputs =
=====

```

M: flag for emergency mode
 T1: timer for default
 T2: timer for everything else
 B3: pedestrian button on road 3
 S2: magnetic car sensor on road 2
 CLK: Day night clock

```

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= Outputs =
=====

```

L1: Lights on Road 1
 L2: Lights on Road 2
 L3: Lights on Road 3
 P1: Crosswalk lights to cross Road 1
 P2: Crosswalk lights to cross Road 2
 P3: Crosswalk lights to cross Road 3
 G1: Advanced left turn light on Road 1
 G3: Advanced left turn light on Road 3

```

=====
= 7 States =
=====

```

States 1-5: malfunction, and night are off in all these states

	L1	L2	L3	P1	P2	P3	G1	G3	T1	T2
Default	1	0	0	0	1	0	0	0	1	0
Green 1	0	0	0	1	0	0	1	0	0	1
Green 3	0	0	1	0	0	0	0	1	0	1
Green P3	1	0	0	0	1	1	0	0	0	1
Green 23	0	1	1	0	0	0	0	0	0	1

Note: 1:Green Light, 0,Red Light

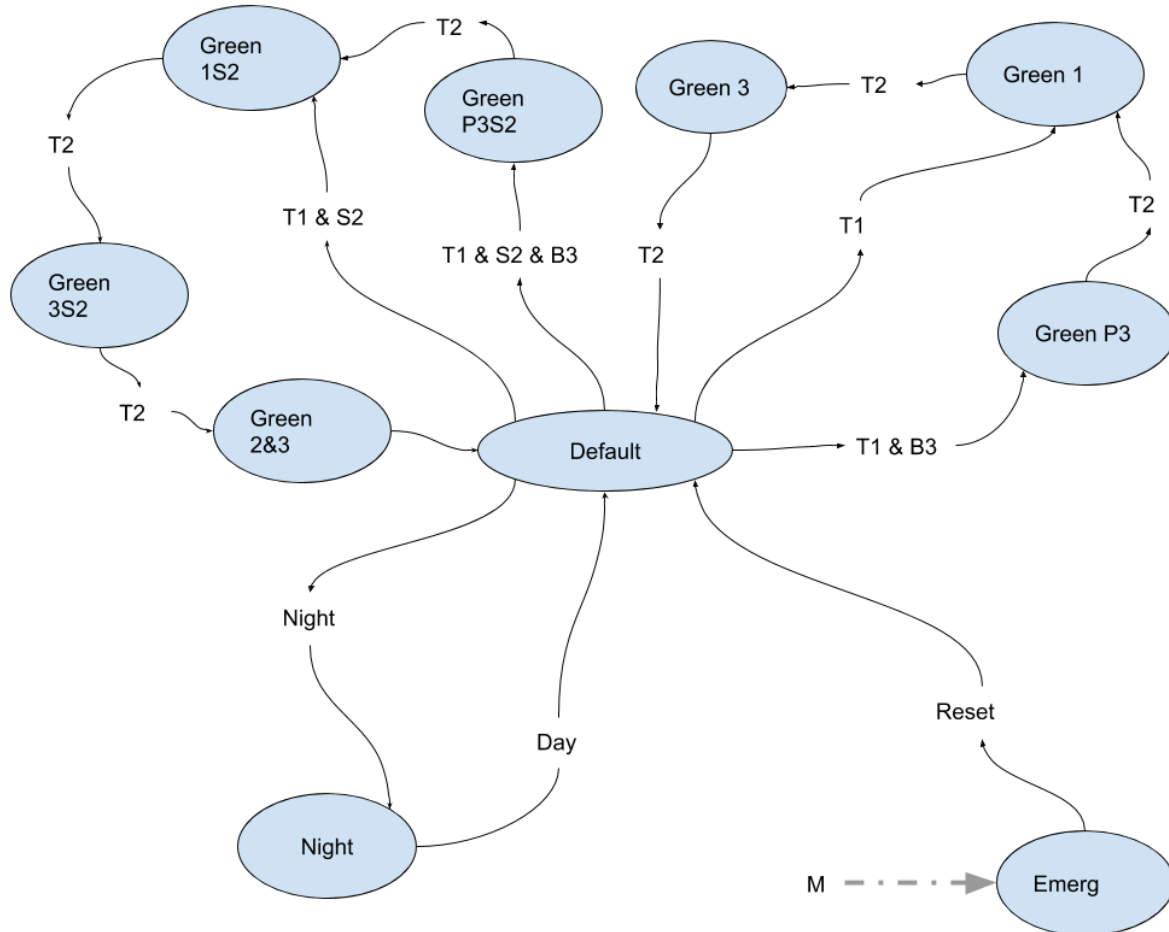
States Green 1, Green 3, Green P3 S2 have an S2 version that leads to Green 23
 Night: Night clock is on, L1 is blinking green, L2 and L3 are blinking red.
 Pedestrian is off, Timers are off. No advance left turns.

Emergency: Malfunction is on, clock can be either night or day, otherwise it is identical to the Night state. Can only exit emergency by pressing the reset button.

=====

= Transitions (Finite State Machine) =

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Night is over when the clock reads a daylight hour. Goes to default. Day time is 0600-2200.

Emergency is only over when the reset button is pressed. Which goes to default.

Business Regulations set by Canada Transit Act
 Storage Space of Microcontroller: 450kB drive and 54kB RAM
 Written in ANSI C
 Expect for program to run for years at a time uninterrupted