Use case description

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| Name: | Arrives at red light |
| ID: | 1 |
| Actor: | Driver |
| Pre-condition: | Traffic light is red |
| Scenarios: | 1. Driver arrives at red traffic light.  2. Driver waits for the light to turn green.  3. System changes the light to yellow.  4. Driver prepares to cross the intersection.  5. System changes the light to green.  6. Driver proceeds to cross the intersection. |
| Exception: | None |
| Extension: | None |
| Result: | Driver crosses the intersection successfully |

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| Name: | Arrives at red light |
| ID: | 2 |
| Actor: | Pedestrian |
| Pre-condition: | Pedestrian light is red |
| Scenarios: | 1. Pedestrian arrives at red light.  2. Pedestrian waits for the light to turn green.  3. System changes the light to green.  4. Pedestrian proceeds to cross the street. |
| Exception: | None |
| Extension: | None |
| Result: | Pedestrian crosses the street successfully |

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| Name: | Arrives at yellow light |
| ID: | 3 |
| Actor: | Driver |
| Pre-condition: | Traffic light is yellow |
| Scenarios: | 1. Driver makes the decision to either cross or wait for green light.  2. Driver decides to cross the intersection on yellow light. |
| Exception: | None |
| Extension: | 2.1. Driver decides to wait for the light to become green.  2.2. System changes the light to green.  2.3. Driver crosses the street on green light. |
| Result: | Driver crosses the intersection successfully |

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| Name: | Arrives at green light |
| ID: | 4 |
| Actor: | Driver |
| Pre-condition: | Traffic light is green |
| Scenarios: | 1. Driver crosses the intersection on green light. |
| Exception: | None |
| Extension: | None |
| Result: | Driver crosses the intersection successfully |

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| Name: | Arrives at green light |
| ID: | 5 |
| Actor: | Pedestrian |
| Pre-condition: | Pedestrian light is green |
| Scenarios: | 1. Pedestrian crosses the street on green light. |
| Exception: | None |
| Extension: | None |
| Result: | Pedestrian crosses the street successfully. |

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| Name: | Arrives during night mode |
| ID: | 6 |
| Actor: | Driver |
| Pre-condition: | Traffic light is blinking in yellow |
| Scenarios: | 1. The driver crosses the intersection carefully keeping in mind there could be another car or creature crossing. |
| Exception: | None |
| Extension: | None |
| Result: | Driver crosses the intersection successfully. |