



Please note

1. That we need flexibility to change the number of lanes and areas we are monitoring.
=> Increase or Decrease the number of Zones 1, 2, 3, ... and A, B, ...

2. For the Pedestrian travel in the crosswalk:
Speed is speed_pedestrian,
Distance is distance_pedestrian,
Time required to decide is time_decided,
Time required to walk is time_walked,
$$\text{Time walked is time_walked} = (\text{distance_pedestrian}) / (\text{speed_pedestrian})$$

3. For the Vehicle (which includes scooter, bicycles, motorbike, and others that can injure a human on the road):
Speed is speed_vehicle,
Time required by vehicle ==> (time_vehicle) = (time_decided) + (time_walked),
Distance is distance_vehicle
$$\text{Distance is distance_vehicle} = (\text{speed_vehicle}) * (\text{time_vehicle})$$

=> the range being monitored

4.
(a) Light source mounted on a 3.5 meter tall pole
(b) Zone 1 is the first that the vehicle reaches as it travels downstream towards the crosswalk
(c) Zone 2 is closer to the crosswalk as the vehicle travels downstream
(d) Zones 1A and 1B: Occupancy ==> "ON" = Vehicle is inside Zone, Occupancy ==> "OFF" = Vehicle is not inside Zone
(e) Zones 2A and 2B: Occupancy ==> "ON" = Vehicle is inside Zone, Occupancy ==> "OFF" = Vehicle is not inside Zone
(f) Zone Crosswalk: Occupancy ==> "ON" = Pedestrian is inside Zone, Occupancy ==> "OFF" = Pedestrian is not inside Zone

5.
Yielding speed is the speed that vehicles attain when rolling/stopping (yielding) for pedestrians to cross, which is close to, or preferably at zero KPH