Traffic Simulation & Crowd Evacuation at Taipei Dome

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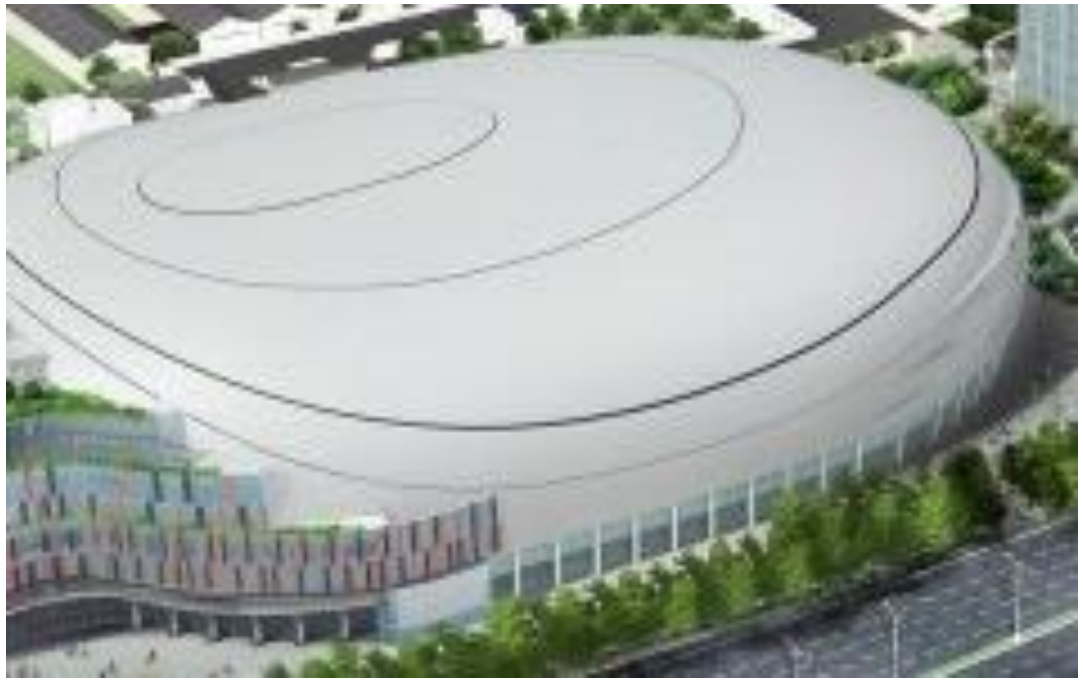
- Code on https://github.com/buffett0323/Traffic-Simulation-Crowd-Evacuation-at-Taipei-Dome.git



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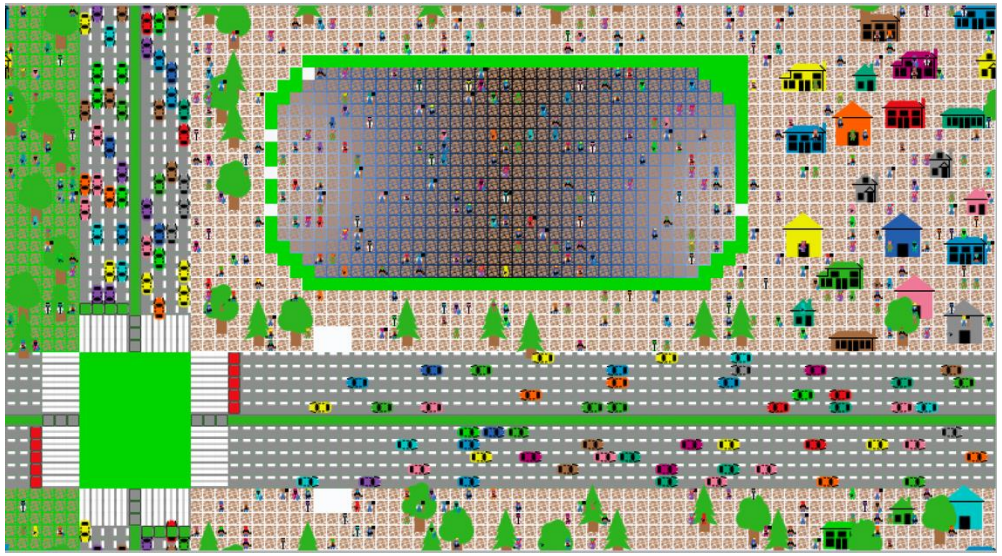
1. Motivation

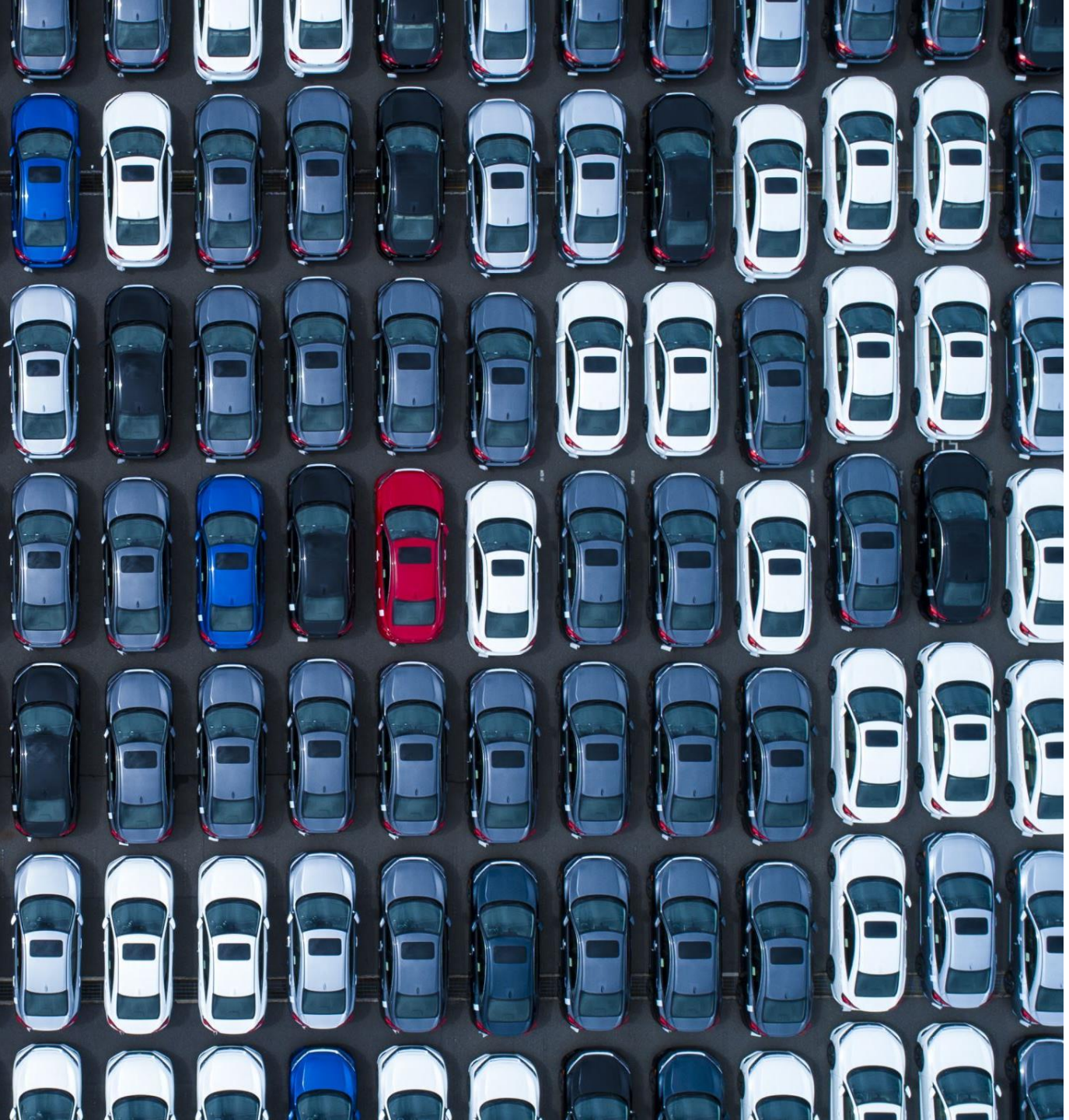
- 梨泰院事件
- 大型活動主辦

```python
# write it into asc file by hand
with open("geo_sim_final33.asc", "w") as f:

  # initial data
  f.writelines("ncols         80\n")
  f.writelines("nrows         44\n")
  f.writelines("xllcorner     0\n")
  f.writelines("yllcorner     0\n")
  f.writelines("cellsize      1\n")
  f.writelines("NODATA_value  -9999\n")

  # input data
  for line in new_np:
    for n in line:
      # put the value into the asc file
      tmp = str(n) + " "
      f.writelines(tmp)
    # new line
    f.writelines("\n")
```



2. Model Introduction

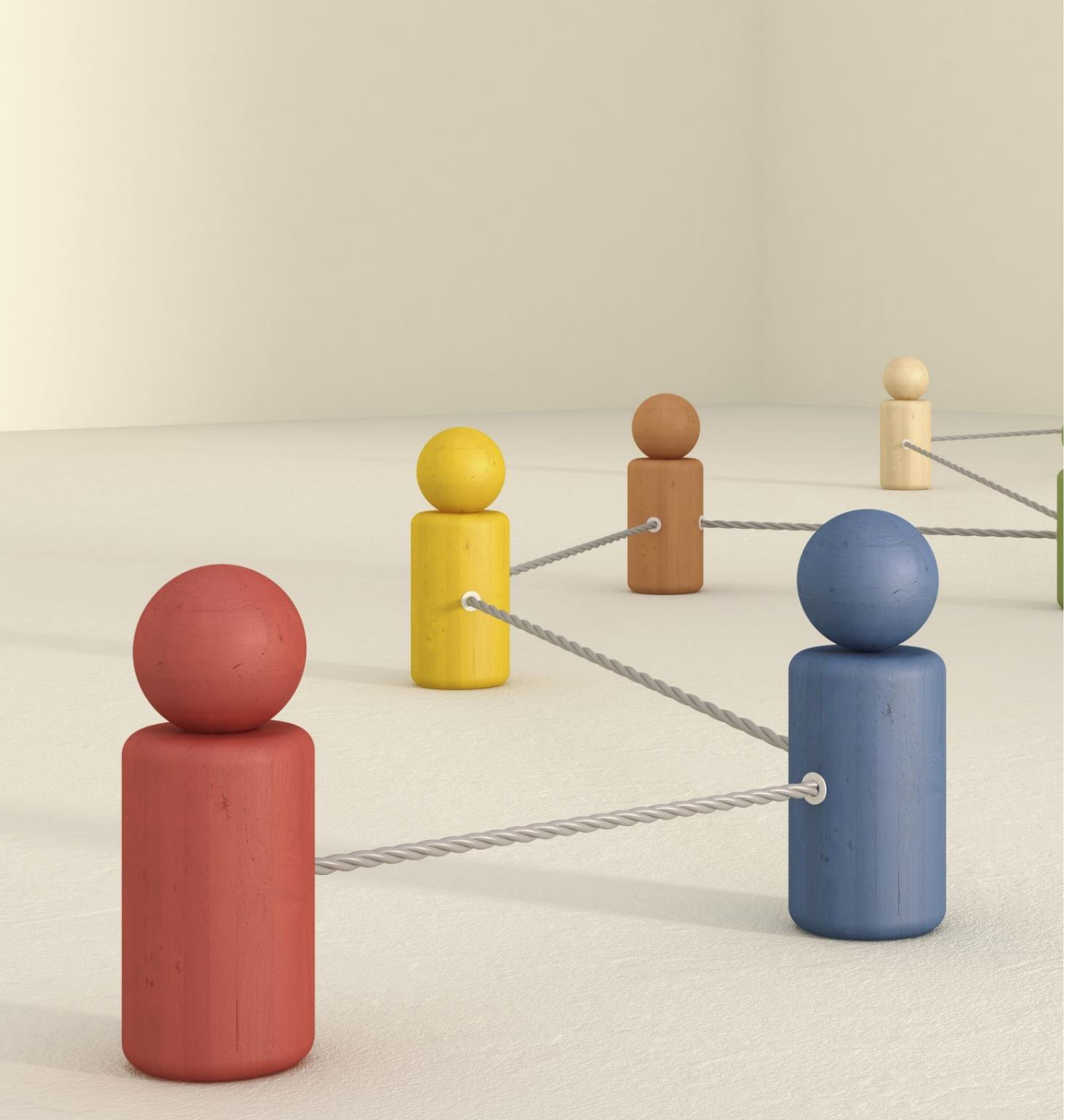
- Python **撰寫** .asc file **的背景數據**
- **使用** Euclidean Distance **當作** Cost**的依據**
- **並用** netlogo **讀取得到**cost map
- Patches **手刻地圖**



Important & Practical settings of the model

- Cars

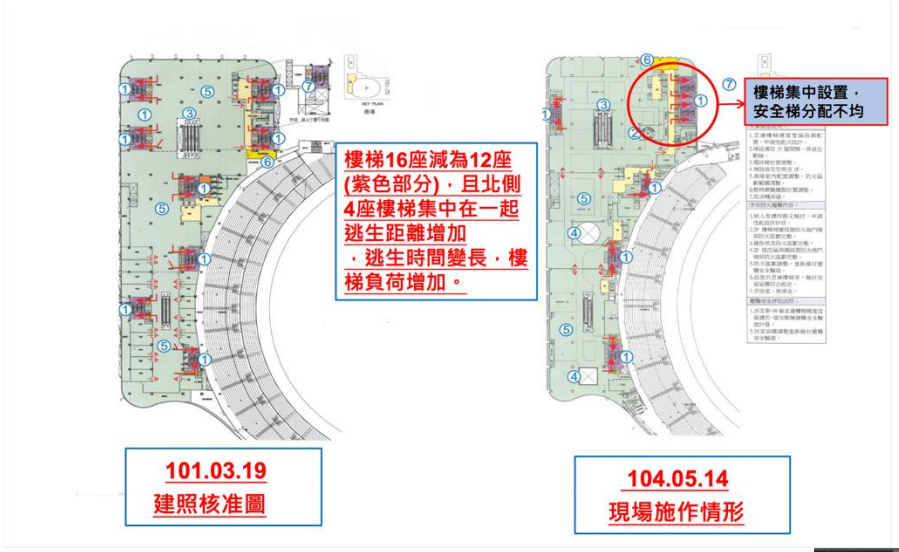
1. **道路安全**
2. **可左右轉車**
3. **客製化駕駛的**Patience
4. Change New Lane



Important & Practical settings of the model

- People

1. **危機發生時的行為改變**
2. **從眾的行為學習**
3. **客製化職業個性**
4. **過馬路安全**
5. **最佳化問題**

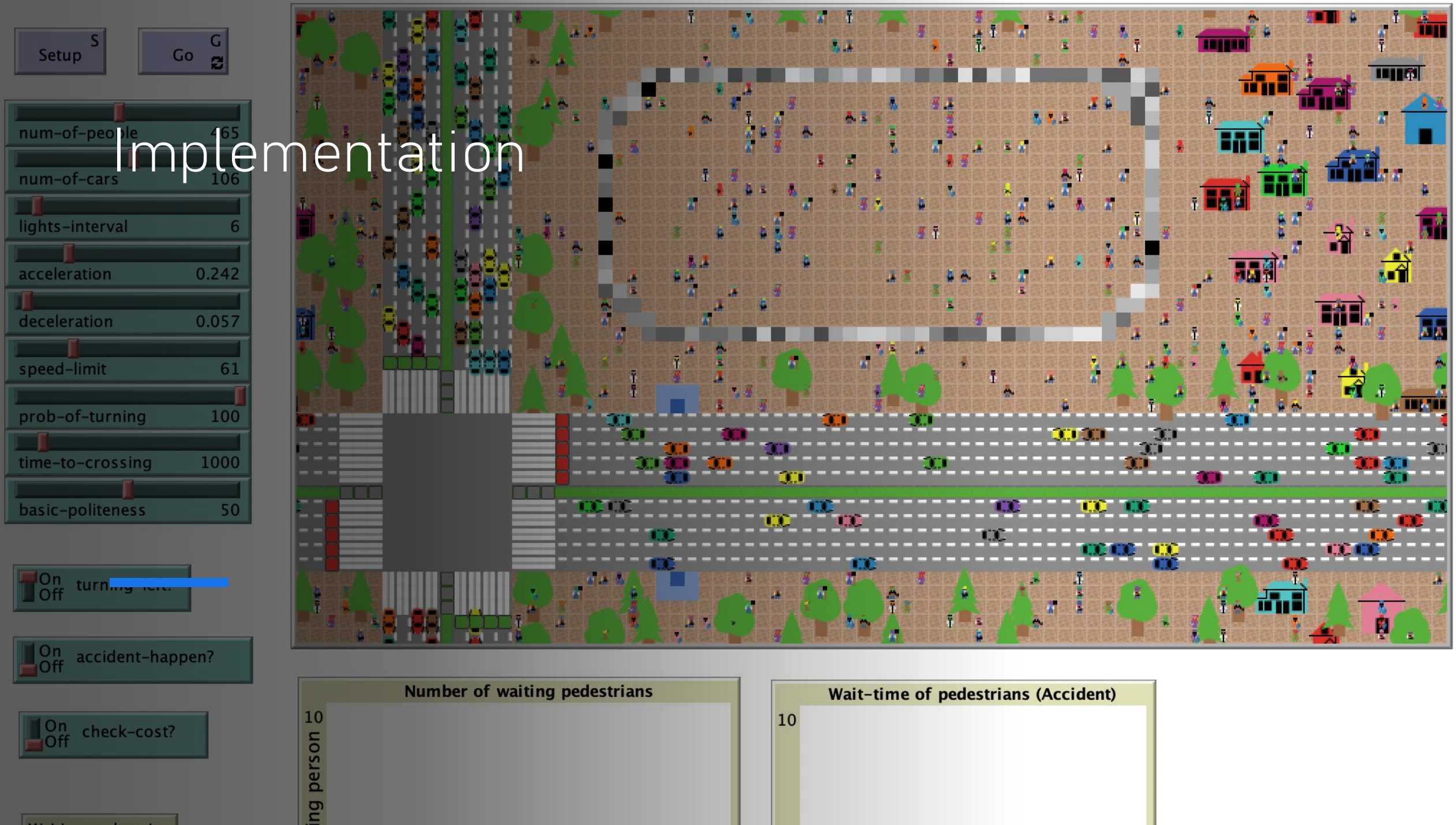


Supporting information

Reference:

- 台北市政府-台北大巨蛋公告安全報告書
- 台北市大巨蛋公開公共安全策略

Implementation



Future work & Conclusion

應用賽局理論的概念套入

探討、擬定增設出口疏散的各項策略

增加樓層的可預測性