

Task 1:A*

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Original image



Manhattan 8 directions



Dijkstra 8 directions



Diagonal 8 directions



Inadmissible heuristic 8 directions
(Manhattan²)



Euclidean 4 directions



Manhattan 4 directions



Euclidean 8 directions



Euclidean/2 8 directions(admissible)



Dijkstra 4 directions



Diagonal 4 directions



Manhattan² (4 directions)



Euclidean/2(4 directions)

Cost:

| Cost | Dijkstra | Admissible | Non Admissible | Diagonal | Manhattan | Euclidean |
|-------------|----------|------------|----------------|----------|-----------|-----------|
| 4 direction | 180 | 180 | 204 | 180 | 180 | 180 |
| 8 direction | 146.598 | 146.598 | 189.26 | 146.598 | 146.598 | 146.598 |

Time:

| Time | Dijkstra | Admissible | Non Admissible | Diagonal | Manhattan | Euclidean |
|-------------|----------|------------|----------------|----------|-----------|-----------|
| 4 direction | 0.282 | 0.226 | 0.148 | 0.196 | 0.152 | 0.214 |
| 8 direction | 0.372 | 0.342 | 0.242 | 0.328 | 0.272 | 0.296 |

