

## Local Search :

- ▶ The **Local Search** algorithm is used to improve the found path, and its task is to minimize the distance by local permutations on the path..
- ▶ Process:
  - ▶ We start with some kind of path (for example, the path found by the A\* algorithms).
  - ▶ The algorithm starts checking all possible pairs of points on the path.
  - ▶ For each pair of points, the algorithm checks whether the distance will improve if these two points are swapped (this is called swap).
  - ▶ If an improvement is found, the points are swapped, and the algorithm continues to check other pairs.
  - ▶ This process is repeated until an improvement is found for all possible permutations.