

Algorithm A*:

- ▶ The **A*** (A-star) algorithm is used to find the shortest path between two points in a graph.
- ▶ The **heuristic function**: This is a method of estimating the "cost" of a path to a target point. In our project, it is calculated as the Euclidean distance (using the formula for the distance between two points on a plane) between the current point and the target point..
- ▶ Finding a way: We start from the starting point and explore the neighboring points.
 - ▶ The algorithm evaluates each point using the sum of two factors: the path already traveled (graph) and a heuristic estimate (distance to the goal).
 - ▶ When the point with the lowest cost is found, it becomes the current one, and the algorithm continues exploring until it reaches the target point.
 - ▶ The algorithm builds a path by returning the path from the starting point to the target point through the parent vertices.