# 58 CoreMind



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## 1. Introduction

An efficient algorithm that guides our builders' every move. With a united front, we present the key features, algorithmic approach, and potential future enhancements that define our algorithm.

### 2. Key features

Building Strategy: One of our primary strategies involves identifying key locations to build Walls that can lead to the highest scores.

Destroying Strategy: The "Destroy" strategy is carefully integrated into our builder action plan.

Strategic Action Prioritization: Our algorithm empowers us with the ability to prioritize actions based on strategic importance. Whether it's building structures, making calculated movements, or dismantling enemy defences, our algorithm chooses actions that maximize our potential score.

#### 3. Algorithm approach

Shortest Path Calculation: Leveraging sophisticated pathfinding algorithms like Dijkstra's, we calculate the most efficient routes for our builders to traverse the terrain.

Dynamic Score Evaluation: Through simulations and computations, we predict potential scores for different action sequences.

Strategic Building and Elimination: Our algorithm strikes a balance between building structures for long-term gains and strategically eliminating rival structures.

## 4. Future enhancement

Our team foresee these enhancements to refine our algorithm's capabilities: Reduce time complexity, Predict opponent's move.