

# Decision-Making Algorithm Based On Utility Values

## Tasks General Priorities:

- Move to Heaven : 1
- Eat Food : 2
- Reproduction : 3
- Attack Enemies : 4
- Collaborate : 5

## Priority Modifier for Each Task:

- **Move to Heaven :**
  - Energy ( + )
  - Distance to Closest Heaven Location ( - )
- **Eat Food :**
  - Energy ( - )
  - Distance to Closest Food Location ( - )
- **Reproduction :**
  - Energy Needed to Reproduce / Current Energy ( - )
  - Enemy Count / Allied Count ( + )
  - Distance to Closest Ally ( - )
- **Attack Enemies :**
  - Attack power > Enemy Defense ( + )
  - Distance to Closest Enemy ( - )
  - Enemy Count / Allied Count ( + )
- **Collaborate :**
  - Nothing.

## Priority Score Formula:

Assignment Score = ( 6 – General Priority + Priority Modifier ) / Distance