User Manual: Ant Stampede Simulation

Description:

This manual describes how to use the ant stampede simulation, a tool that allows analyzing the behavior of ants in an emergency.

Introduction:

The ant stampede simulation is an educational tool that enables users to observe and analyze the behavior of ants in a stampede situation. The simulation can be used to:

• Understand how ants behave in danger situations.

• Analyze the impact of different variables on ant behavior.

• Experiment with different strategies to control ant stampedes.

System Requirements:

To run the ant stampede simulation, you need:

• A computer with a Windows, macOS, or Linux operating system.

• Python 3 installed.

Installation:

1. Clone the GitHub repository:

git clone https://github.com/your\_username/ant\_stampede\_simulation.git

2. Navigate to the project folder.

3. Install dependencies:

pip install -r requirements.txt

Running the Simulation:

To run the simulation, open a terminal or command prompt and navigate to the project folder. Then, execute the following command:

python ant\_stampede\_simulation.py

Simulation Parameters:

The ant stampede simulation has several parameters that can be observed to understand the state of the ants. Some of the most important parameters are:

1. intact\_ants: These are the ants that have not suffered any damage.

2. heads: Refers to the ant heads.

3. bodies: Refers to the ant bodies.

4. other\_parts: Refers to any other part of the ant.

Interpreting the Results:

We can visualize how many ants died due to the stampede.

• Number of dead ants: This result indicates the number of ants that died during the stampede.

Limitations:

The ant stampede simulation is a simplified tool that does not represent all aspects related to ant stampedes.

Troubleshooting:

If you encounter issues running the ant stampede simulation, refer to the troubleshooting section in the project documentation.

We hope this manual helps you use the ant stampede simulation to better understand ant behavior in emergency situations.