

Welcome to the Drone Design Team!

Capacity (lb)

5

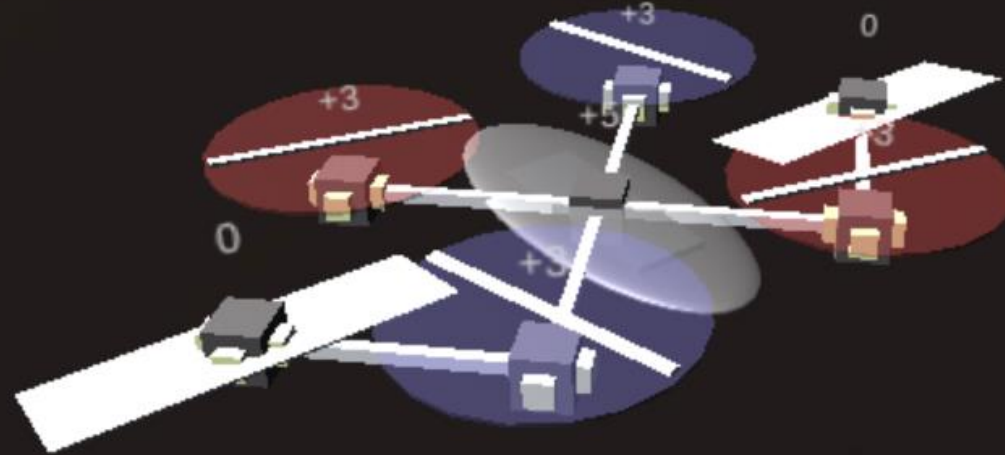
Evaluate

Team Designs

winged

base

Components /
Hot Keys (1-5)



Forward

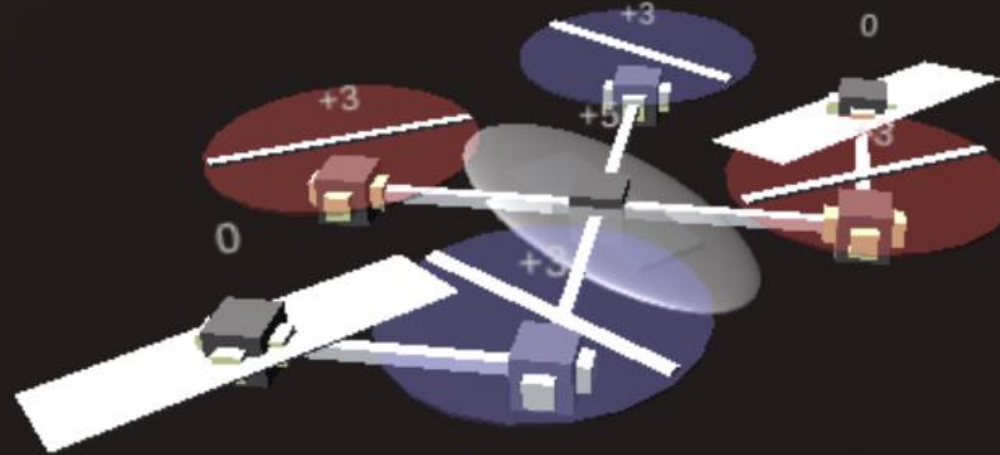
Information Flow

Capacity (lb)

5

Your role is to develop drone configurations that satisfy the goals of the team's operation strategy

Components /
Hot Keys (1-5)



Forward

Team Designs

winged

base

You will be receiving guidance from your team's operational planners to create drones that have a desired range, capacity, and/or cost performance

General Guidance

1) Create a Drone Design Using Structures, Motors, Foils, and Connectors Using Mouse Clicks and Hot Keys. Also, Enter Desired Capacity in Pounds in the Upper Left Pane.

4) Load Plans from Your Team and Open/Edit

1) OR, Use the Designer AI Agent To Assist You in the Drone Design

2) Evaluate a Design To Calculate its Performance Metrics

3) Submit a Design to Your Team in the Evaluation View, or Select 'OK' to Return to Design Mode



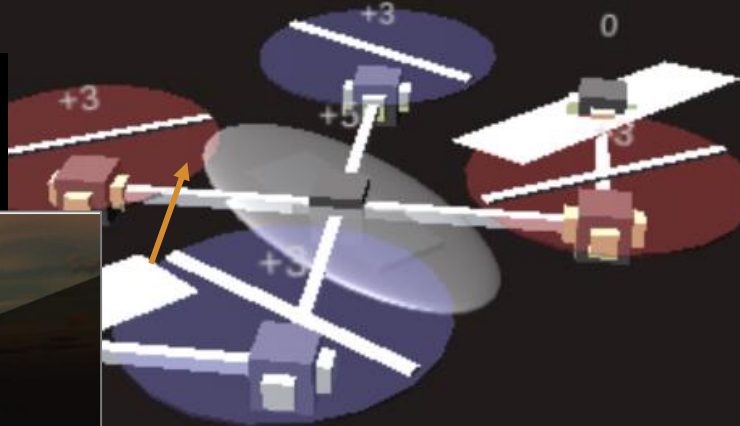
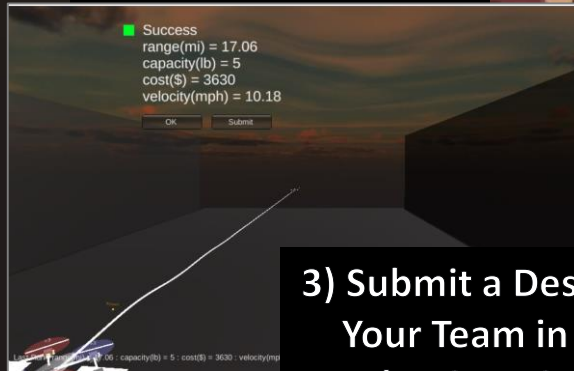
Capacity (lb)

5

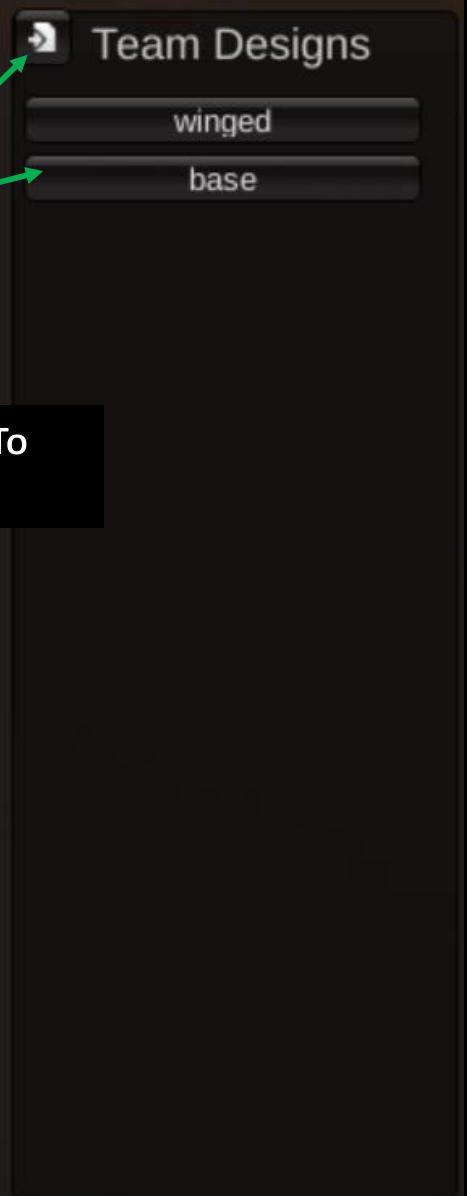
Evaluate



Components /
Hot Keys (1-5)



Forward



Components

Hotkeys

1



Battery – provides energy proportional to its size

2



Motor – provides upward and forward thrust proportional to size

- Red motors spin clockwise
- Blue motors spin counter clockwise

3



4



Airfoil – provides lift proportional to size and forward velocity²

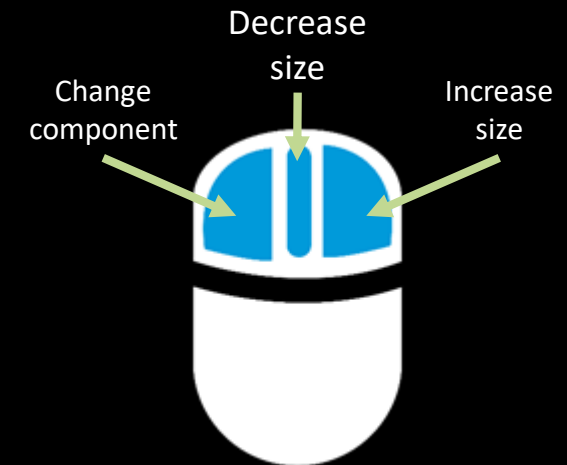
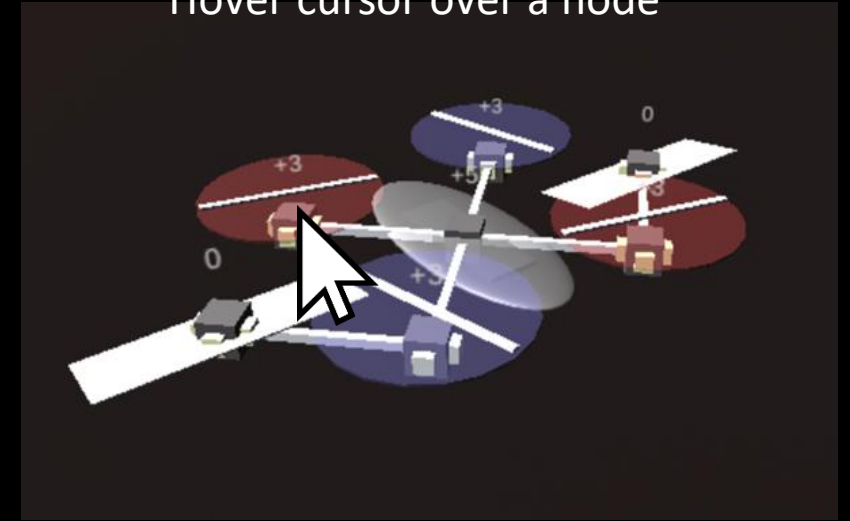
5



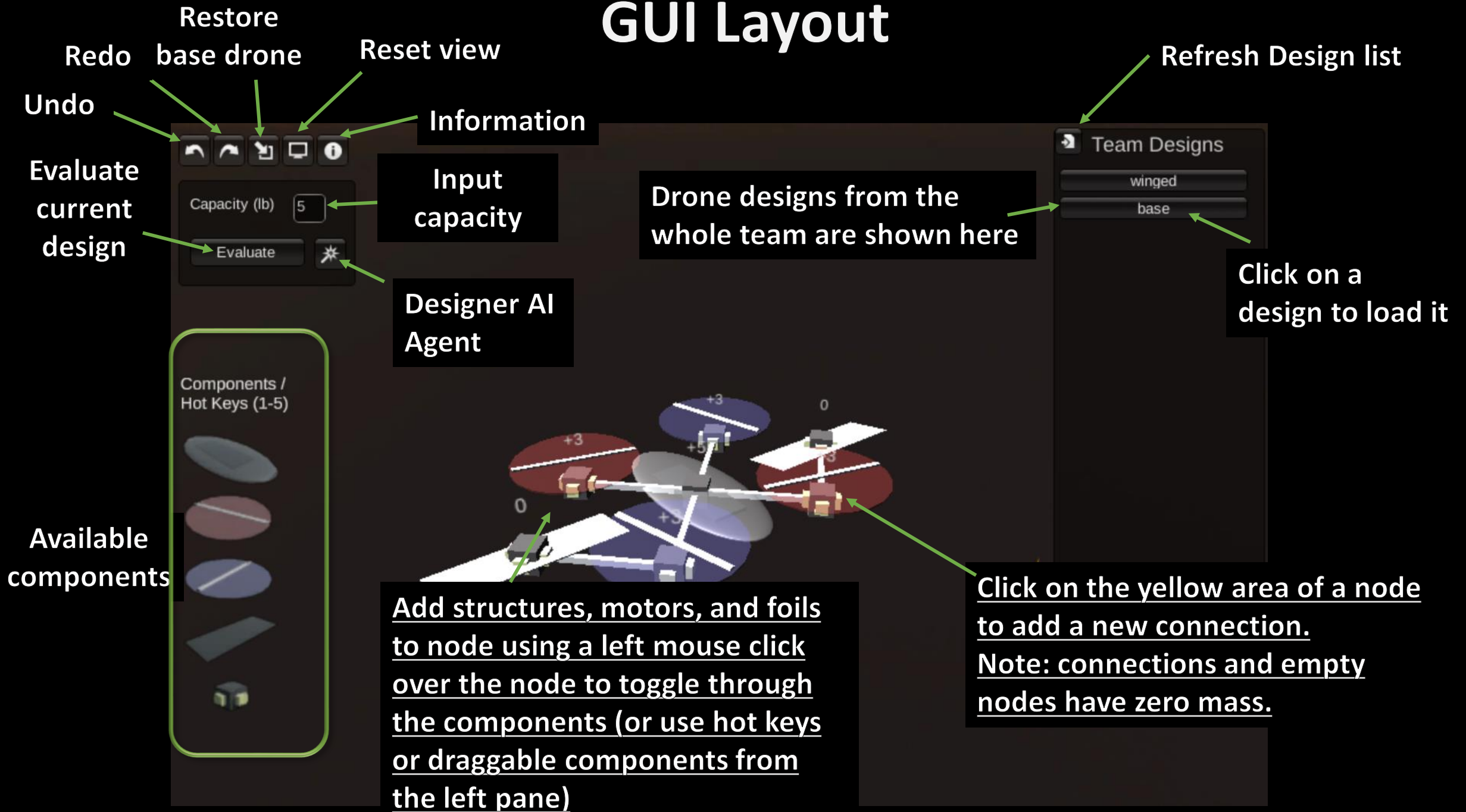
Node – provides mounting location for components, has zero mass

Note: Component hotkeys are active when the cursor hovers over a node

Hover cursor over a node



GUI Layout



Designer AI Agent

Capacity (lb)

Evaluate



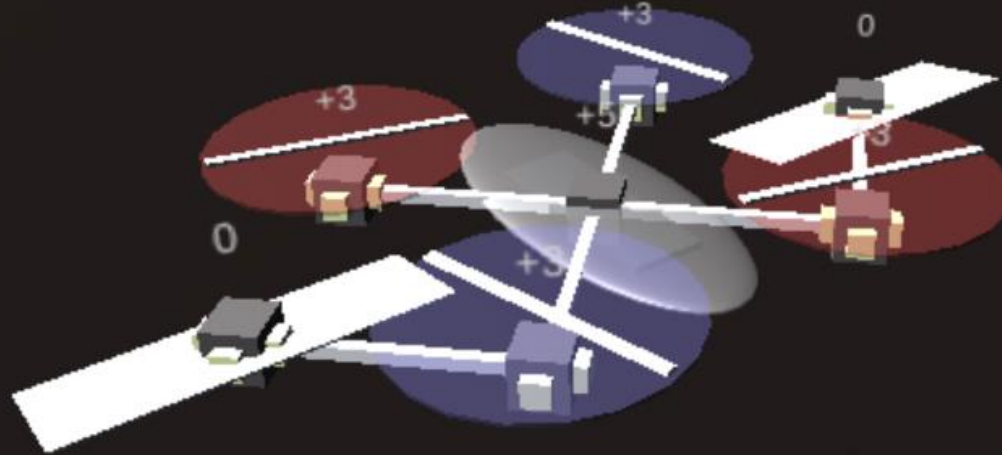
Click here to get suggestions from an AI designer based on your current drone design.

Team Designs

winged

base

Components /
Hot Keys (1-5)



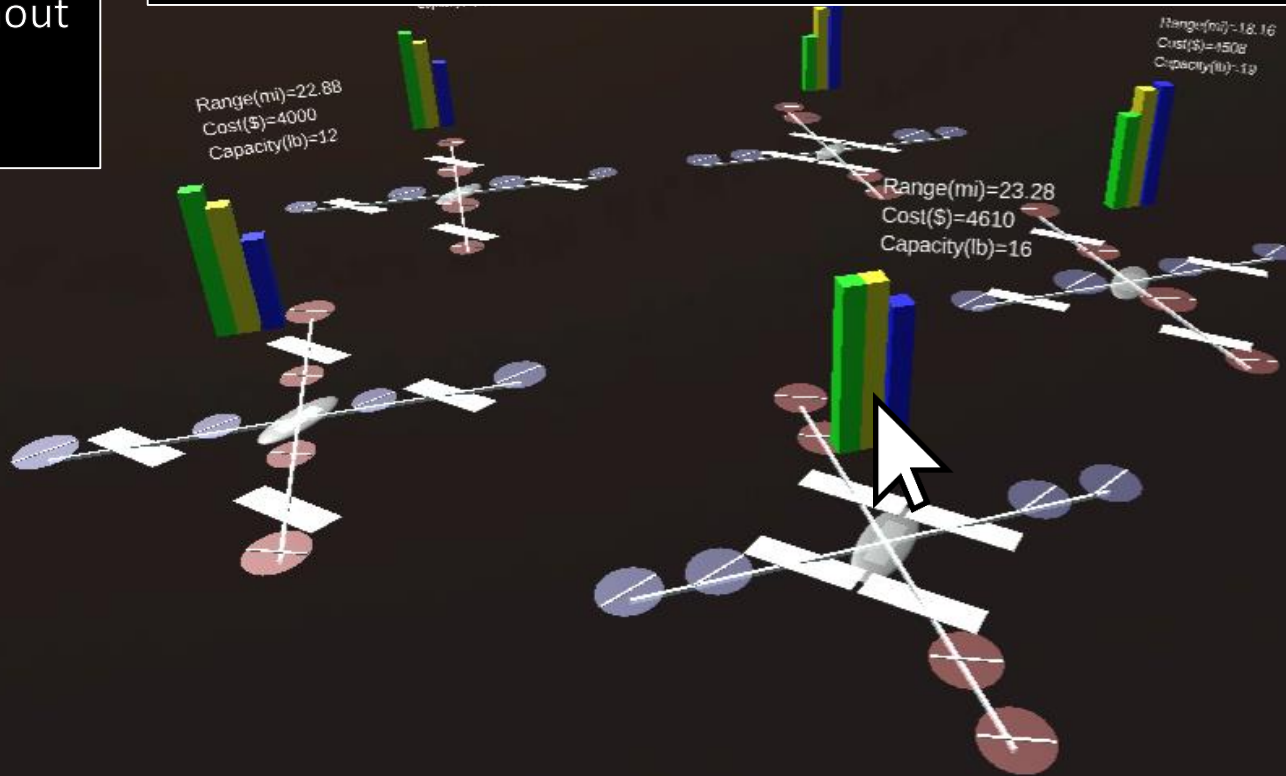
Forward

Design Mode

Left click on any of the **green**, **yellow**, or **blue** metric bars to load the AI Agent generated design

Range
Cost
Capacity

This button will return you to the design without selecting an AI agent design



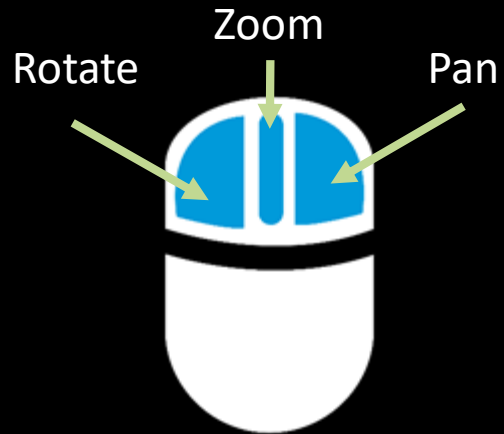
Increase size



3D Scene Movement

Mouse

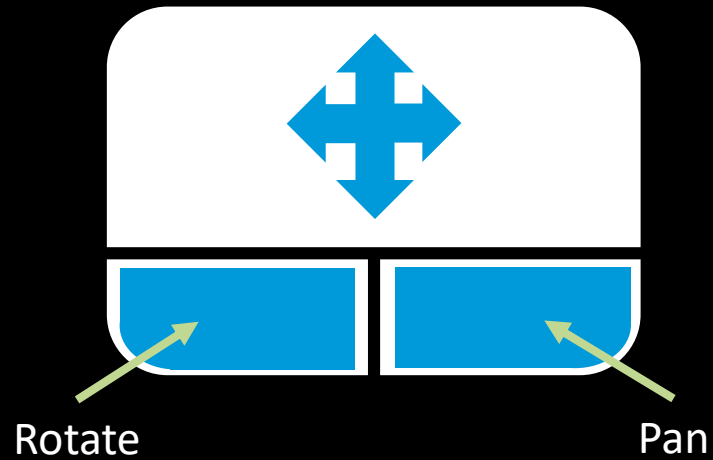
Click + drag



Zoom: Shift + drag

Laptop Touchpad

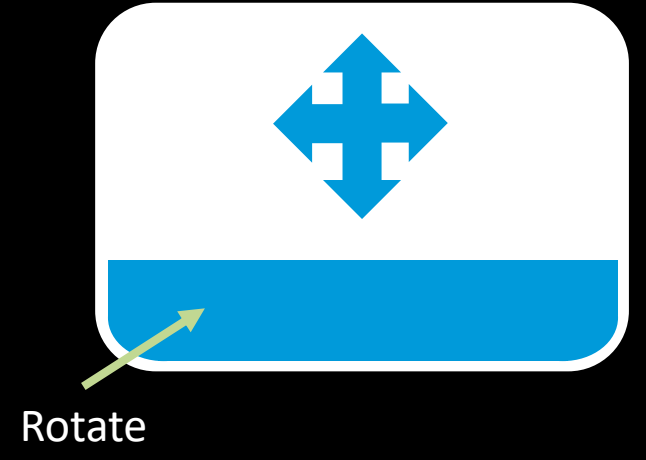
Click + drag



Zoom: Shift + drag

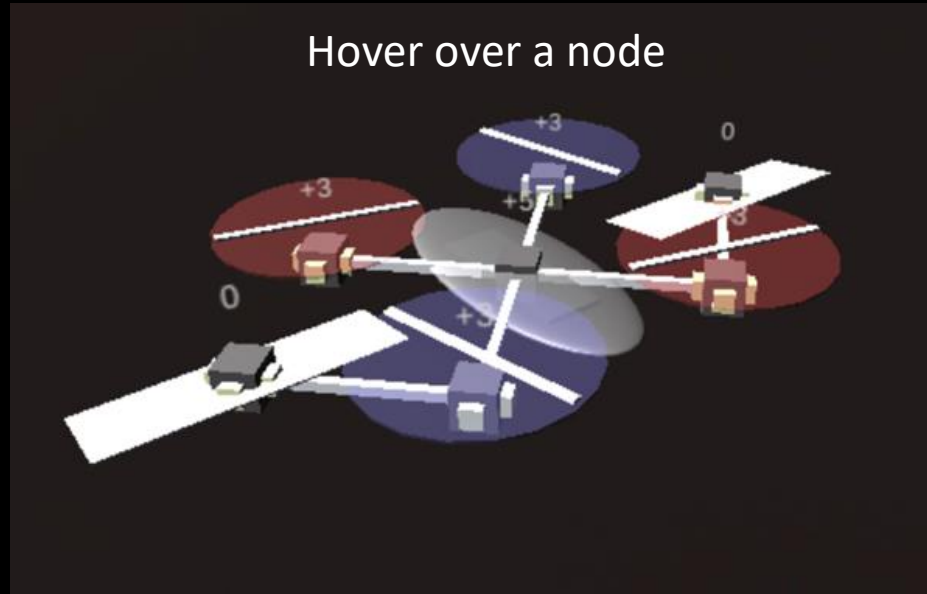
Mac Tracpad

Click + drag

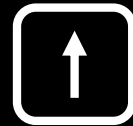


Zoom: Shift + drag

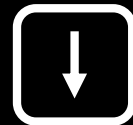
Additional Hotkeys



Delete – remove the component or structure from the design



Increase Component Size



Decrease Component Size