BattleGraphs

Player Guide

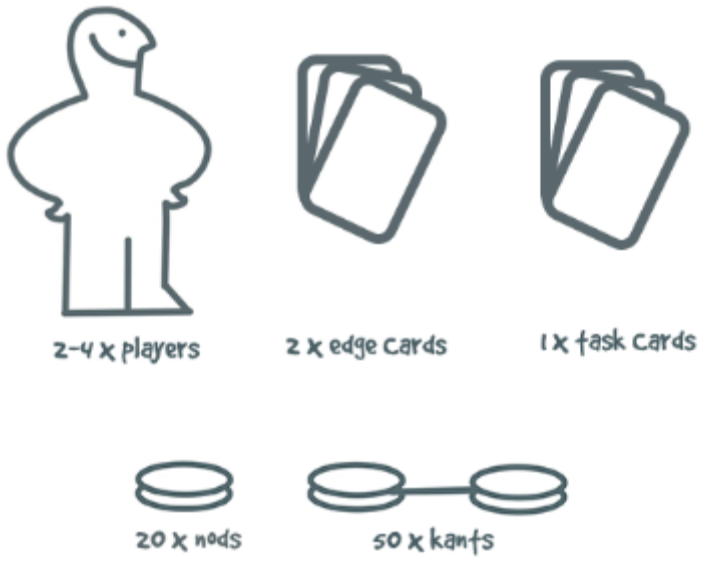
Welcome to BattleGraphs! Compete to build and master physical network structures in this fast-paced, brain-boosting two-player game.

Goal: Construct a graph using physical nodes (**NODs**) and edges (**KANTs**), then battle your opponent to solve graph analysis tasks faster and more accurately.

What's in the box?

- **NODKANT Toolkit** (nodes & edges with magnets and adjustable yarn)
- **Magnetic Whiteboard** (your construction surface)
- **Edge Cards** (each card represents one edge to place)
- **Task Cards** (graph analysis challenges with answers on the back)

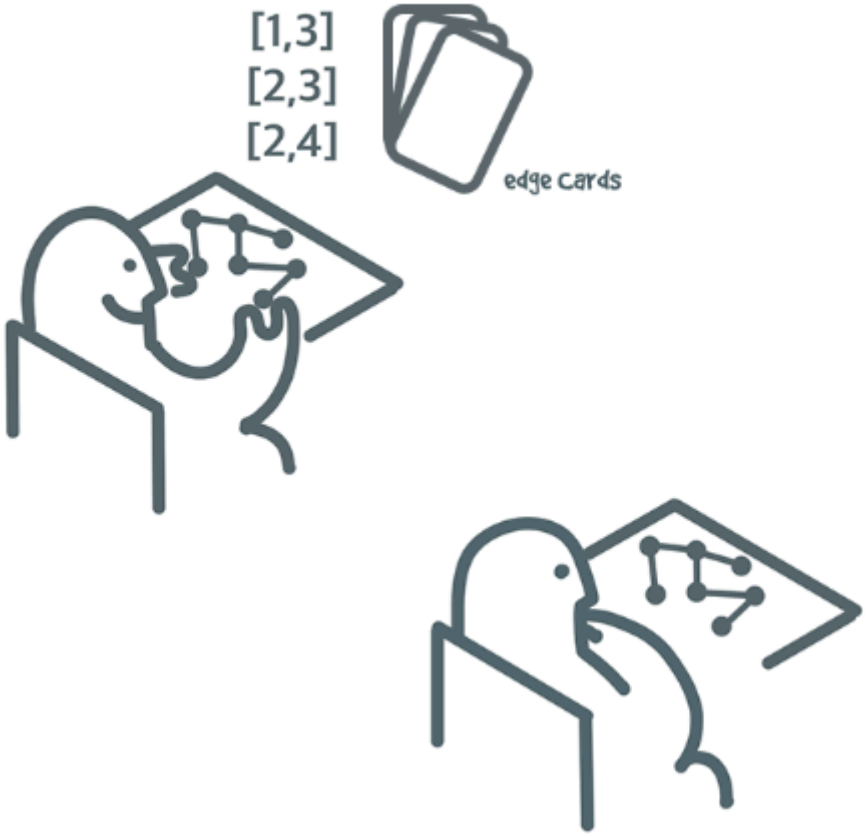
Phase 1: Setup (max. 15 minutes)



- Each player receives the same shuffled Edge Card deck.
- Grab your NODKANT nodes and edges.
- Set the timer for 30 minutes and prepare for the Assembly Phase.

💡 **Pro Tips:**
Organize your materials!
Plan, plan, and plan!

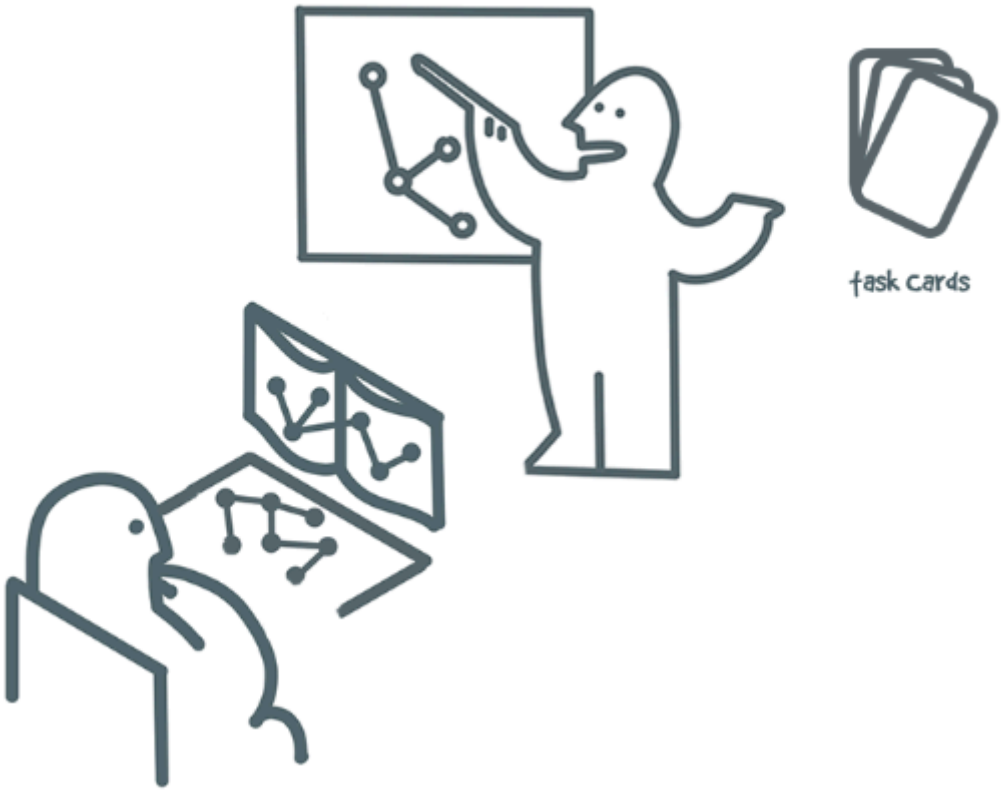
Phase 2: Assembly (max. 30 minutes)



- Use your Edge Cards to build the graph one connection at a time.
- Each card shows an edge to be constructed (e.g., A–B).
- Strategize your own layout to maximize clarity and speed.

💡 **Pro Tips:**
Adjust edge lengths using the spooled yarns!
Start by identifying high-degree nodes to anchor your layout.
Leave space between clusters.
Use edge lengths to visually suggest proximity or importance.
Think ahead: optimize layout readability for quicker analysis later!

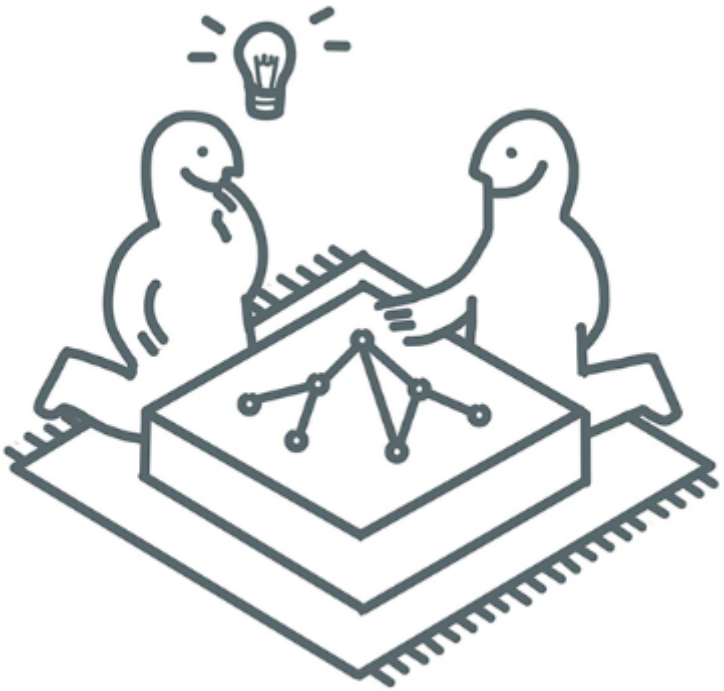
Phase 3: Battle! (max. 30 minutes)



- Draw from the Task Card deck.
- Read the graph task out loud — both players race to solve it using their own board.
- First correct answer wins the round and gets points!

💡 **Pro Tips:**
Scan your layout quickly. If it's well-organized, you'll spot answers faster.
Use your fingers to trace paths physically, this aids memory and accuracy.
For tie-breakers, precision matters more than speed.
Stay calm and clear.

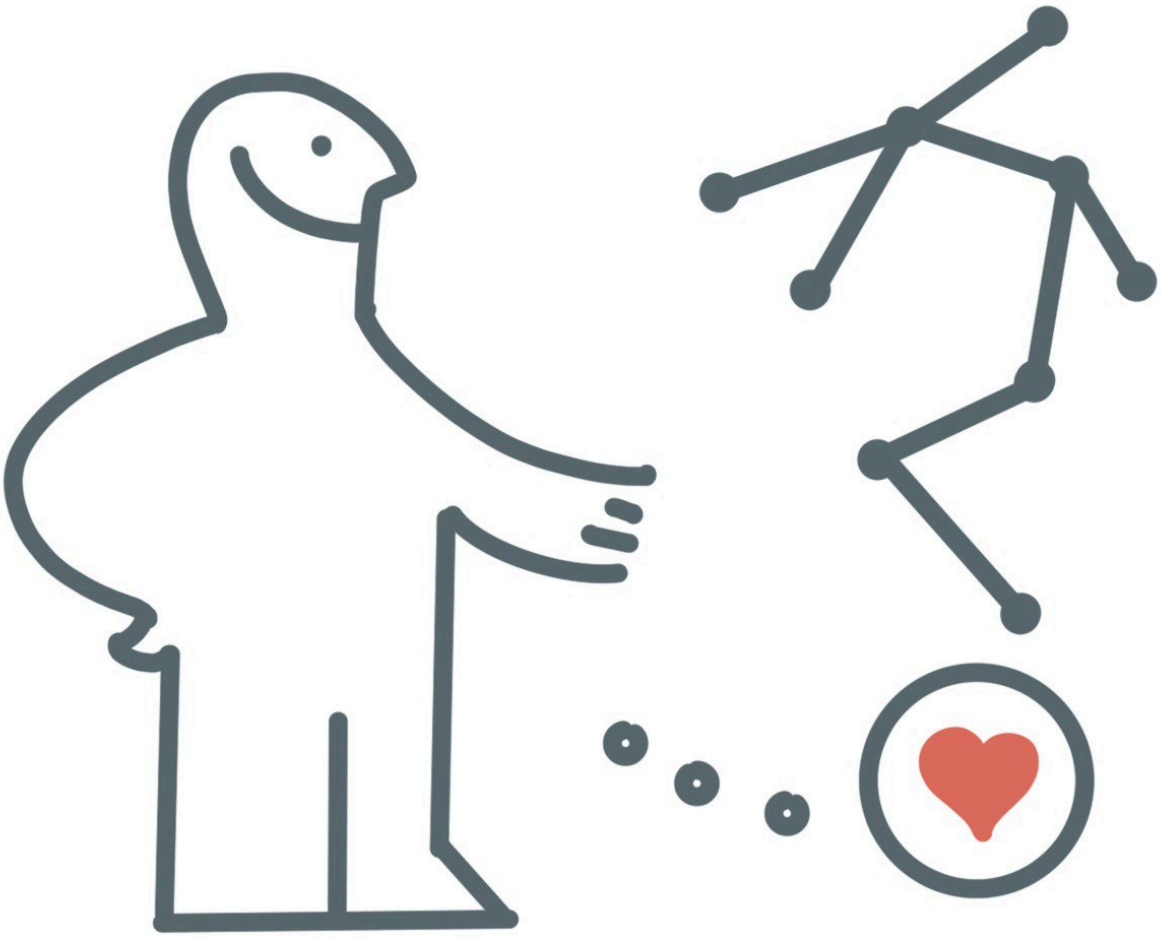
Phase 4: Discussion Phase (max. 15 minutes)



- Reflect on your layout decisions, analysis strategies, and overall experience.
- Discuss what helped or hindered your performance.
- Compare graph layouts. How did your approach and layout affect readability?
- Share feedback: what design or strategy would you change next time?

💡**Pro Tips:**

Look for missed optimization opportunities in your layout.
Pay attention to your opponent's strategy. What can you adopt?
Use this phase to deepen your understanding of graph theory concepts.



Difficulty Levels (Expansion pack needed)

Choose your challenge:

- **Easy**: Small graph, fewer nodes/edges.
- **Medium**: Moderate complexity.
- **Hard**: Dense, complex networks for expert players.

What You Practice

- Graph basics (nodes, edges, paths, clusters)
- Construction strategy (layout approaches)
- Visual analysis (Graph problem-solving)

Replay Value & Difficulty

Choose from **easy**, **medium**, or **hard** modes for varying complexity. Shuffle the cards and replay with new edge orders or task sets to test different strategies.

💡 **Pro Tips:**
Try switching roles (first vs. second constructor) between games.

Shuffle the task deck to keep each match fresh and surprising.

Winning

- Earn points by solving tasks fastest and correctly.
- The player with the most points at the end of the Task Phase wins the match!

Enjoy competing, creating, and connecting in ***BattleGraphs***!

Build smart. Think fast. Fight for the win (with strategy).