

### JEN

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## The Basics

Jen is played on a grid of square tiles called the **board**, which has a fixed size. The game requires at least two players. The goal is to be the last player with a "significant presence" on the board.

## TL;DR

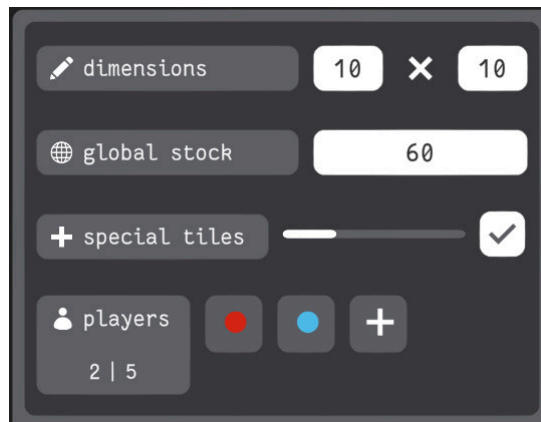
The easiest way to learn Jen is by playing. Left-click and drag your Tank to move it. Right-click a Tank to turn it into a City. Cities generate blocks every turn. Left-click and drag from a City to create another Tank. Use your Tanks to eliminate the other players.

## Starting the Game

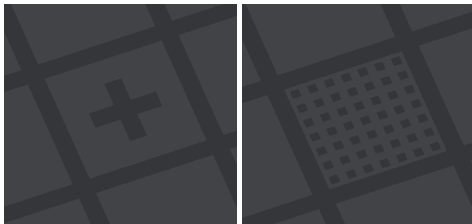


After clicking "play," you'll be taken to Jen's **play menu**. Jen offers a lot of customization, but the key settings are in the first section of the menu.

## Key Settings in the Play Menu



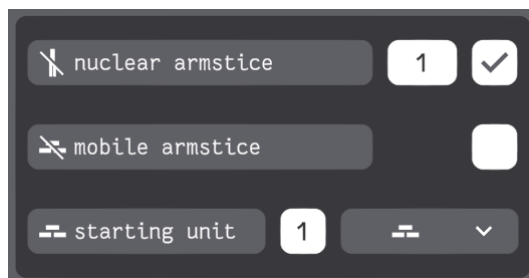
- Use the **dimensions** option to set the size of the board (number of tiles).
- The **global stock** option sets the maximum number of stock blocks available in the game. Units in Jen are made from these blocks. For example, a Tank requires 3 stock. Cities generate stock each turn to produce more units. You'll learn more about stock in the [Units section](#).
- The **special tiles** option has two parts:
  - The slider sets the number of **plus tiles** on the board. Cities on regular tiles generate 1 stock per turn, but on a plus tile, they generate 2.
  - The checkbox enables the **hamper tile**, which stops all Cities from producing stock when occupied by any player's unit.
  - Here's what the plus tiles and hamper look like:



- Use the **players** option to add players to the match. The maximum number of players depends on the board's size—the larger the board, the more players can join.
  - Click the plus icon to add players.
  - Click a player's color to change it. Click it again to remove that player from the game.

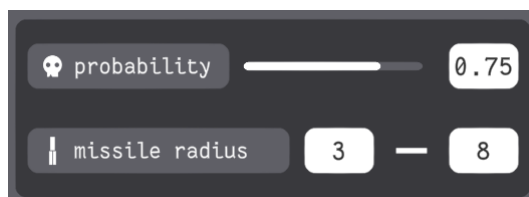
## Deal Options in the Play Menu

Jen features a diplomacy system where players can make deals with each other. This section of the menu lets you set up default deals between players at the start of a match. You'll find more about deals in the [Diplomacy section](#).

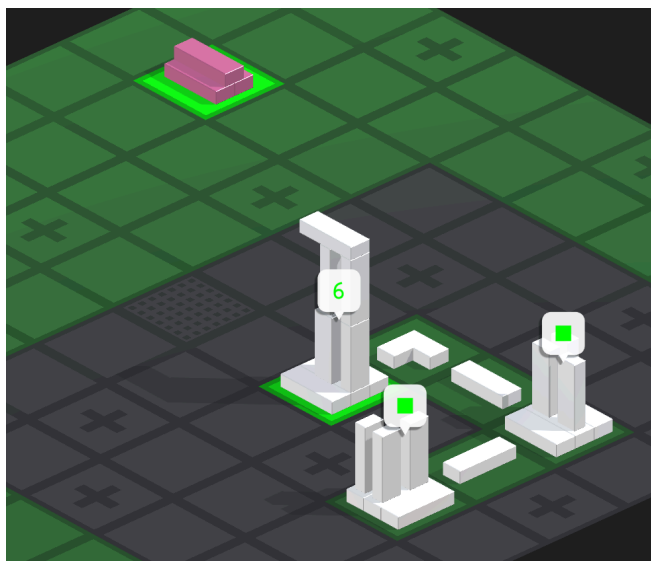


- **Nuclear armistice:** Players agree not to fire missiles at each other. You can assign a *stock offer value* for this deal, meaning if a player breaks it, they must pay the other player in stock. If the stock value is set to 0, the deal can be broken without penalty.
- **Mobile armistice:** Similar to nuclear armistice but applies to Tanks instead of missiles. Players agree not to use Tanks to attack each other. This also comes with a customizable stock offer value.
- **Starting units:** Choose which units players start with, and how many of each unit.

## Attack Options in the Play Menu



- **Probability:** This sets the attacker's chance of winning a battle.
- **Missile radius:** Determines how far a City can launch missiles, e.g., "3 - 8" means a target must be between 3 and 8 tiles away. More on this in the [City section](#).



# Rules

Jen has some key terms for its rules:

- **Adjacent to a tile** means the four tiles directly next to a tile, sharing a side.
- **Surrounding a tile** includes both the adjacent tiles and the four diagonal ones.
- **Attacker's probability** ( $p_{attack}$ ) refers to the chance of a successful attack, a value between 0 and 1.
- **Nullifying a deal** refers to the action of breaking a deal you made with another player. It is called "nullifying" because both players must give back all agreements and offers made in the deal (as if the deal never happened).

## Units

Players interact with the game by controlling their units. A **unit** occupies a tile, is owned by a player, and has specific actions it can take. Only one unit can occupy a tile at a time, and units can be either **ready** or **exhausted**. A unit is ready when it can act and becomes exhausted after performing an action, until it's refreshed.

There are two types of units: **City** and **Tank**. Cities don't move, but Tanks can.

At the start of each player's turn, all their units are refreshed to the ready state.

Each unit also has a **stock value**. This value reflects how much stock the unit uses or produces. The **global stock** is the total amount of stock available in the game. When a unit is destroyed, its stock is returned to the global pool.

## Tanks

The **Tank** unit can perform two actions:

1. Left-click and drag the Tank to move it to an adjacent tile.
2. Right-click the Tank to turn it into a **City**.

Tanks can move if the adjacent tile is empty, occupied by an enemy unit, or contains a **Path**. If the tile is empty, the Tank moves onto it. If an enemy occupies the tile, the Tank attacks, and if the attack succeeds, the Tank takes over that tile. If the enemy is also a Tank, there's a chance the attack will fail, and the enemy Tank will counterattack. The counterattack chance is  $1 - p_{attack}$ .

Tanks can only transform into Cities if no other Cities are on the surrounding tiles. Also, Cities cannot be built on the tiles surrounding the *hamper*. A newly formed City starts in the exhausted state.

There are two types of Tanks: **Tank** and **Tank Plus Plus**. Regular Tanks have a stock value of 3, while Tank Plus Plus units have a stock value of 4. If a Tank Plus Plus is attacked, it downgrades to a regular Tank instead of being destroyed outright.

If a Tank Plus Plus is defending against a regular Tank, it has a *defense buff* that halves the attacker's probability.

## Cities

The **City** unit has a base stock value of 3 and draws 1 stock from the global pool at the start of each turn, up to a max of 6 stock. If the City is on a *plus tile*, then it will draw 2 stock. Cities can spend their stock to perform various actions as long as they have enough stock.

Cities can:

1. Left-click and drag to create a **Tank** on an adjacent tile.
2. Left-click and drag to upgrade a nearby **Tank** to a **Tank Plus Plus**.
3. Right-click and drag to build **Path** objects, connecting to another of your Cities.
4. Left-click and drag to fire a missile at an enemy within its missile range.

Cities can only build Tanks on empty tiles or tiles with a Path owned by the player. Building a Tank on an empty tile costs 3 stock and the Tank starts exhausted. On a Path, it costs 2 stock and the Tank starts ready.

Upgrading a Tank to a Tank Plus Plus costs 1 stock and requires the City to be adjacent to the Tank.

Cities can fire missiles within their **missile radius**, which is set in the play menu. This costs 6 stock.

## Paths and Regions

A **Path** has a stock value of 1 and is removed when a Tank moves onto it. Paths can also be manually removed. Paths that connect adjacent Cities create a **region**. Cities in the same region share their stock, allowing them to pool resources for building units or launching attacks.

## Significant Presence

A player has a "significant presence" if they control at least one unit. If a player forfeits, they lose their significant presence, even if they still have units on the board.

## Diplomacy

In Jen, you can make **deals** with other players through the [Diplomacy Tab](#) in the pause menu. A deal consists of a **stock offer** and a choice of up to three agreements:

1. **Nuclear Armistice:** Prevents your cities from launching missiles at the other player.
2. **Mobile Armistice:** Stops your tanks from attacking the other player.
3. **Cooperative Victory:** Granting this agreement to another player allows them to end the game on their turn, declaring both of you as joint victors if you're the last two players left in the match. If both players have given each other the cooperative victory agreement, the game will immediately end as soon as only the two of you remain.

The **stock offer** is the number of blocks you give to secure the deal. If the deal is *nullified*, both players must return the blocks provided by the other player, along with canceling any agreements.

### Making Deals

Players propose deals on their turn, which the recipient can accept or reject on their next turn. If a player is only offering something (e.g., stock or an armistice) without asking for anything in return, the deal is automatically accepted. For instance, if you give a nuclear armistice and 3 stock but ask for nothing in return, the deal is accepted immediately.

Similarly, editing deals works the same way: if a player requests additional stock or terms, the other player must accept or reject it. However, if a player adds more to the deal without asking for anything, it is automatically accepted.

### Nullifying Deals

To nullify a deal, you must have the stock offer value on hand. For example, say you gave a nuclear armistice and 3 stock and the other player gave a nuclear armistice as 2 stock. For you to nullify the deal, you must have at least 2 stock on hand. This amount is immediately given back to the other player on the turn you nullify the deal. However, the other player will return the 3 stock at the start of their next turn. If they don't have enough stock on that turn, they owe you the difference, which will be paid as their cities generate more stock in their subsequent turns.

# In-game Pause Menu

Press **p** to access the pause menu. Tabs at the top allow you to navigate between different sections.

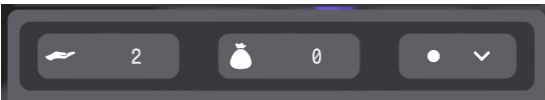
## The Stock Tab



This tab shows a pie chart displaying stock distribution among players, along with detailed stock statistics. Hover over each item for a tooltip explaining its meaning. Use the player icons at the bottom to view stats for different players.

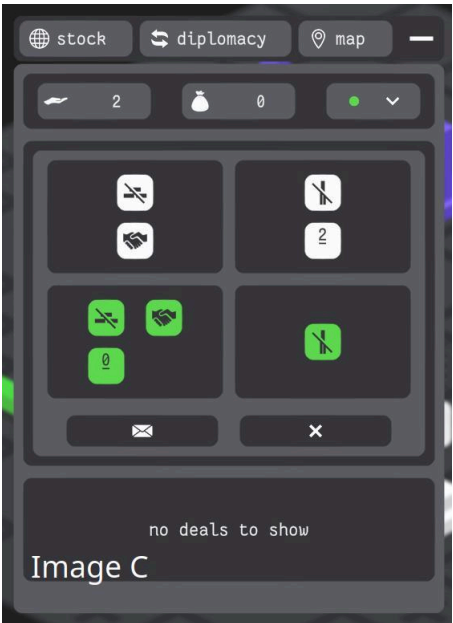
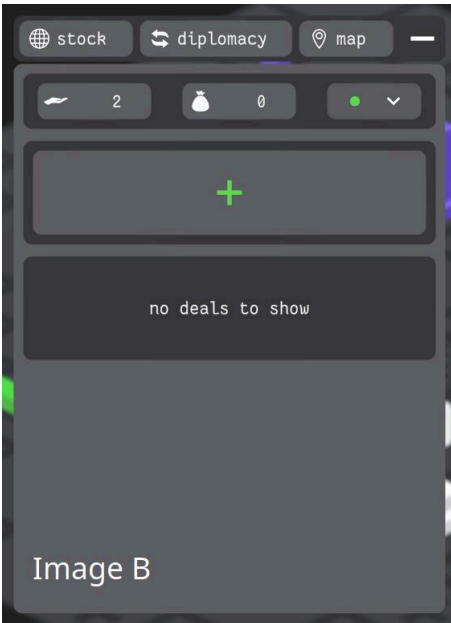
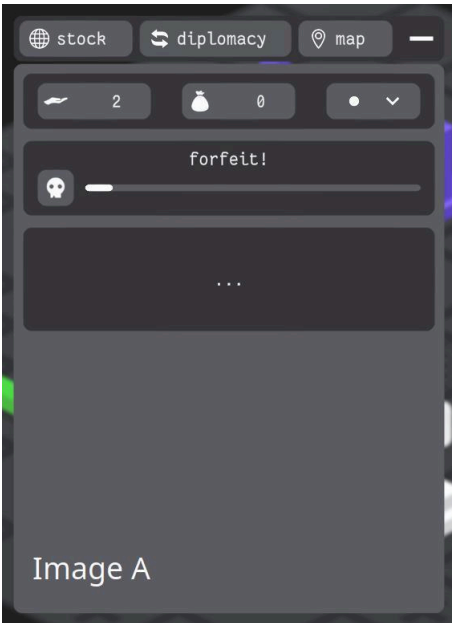


# The Diplomacy Tab



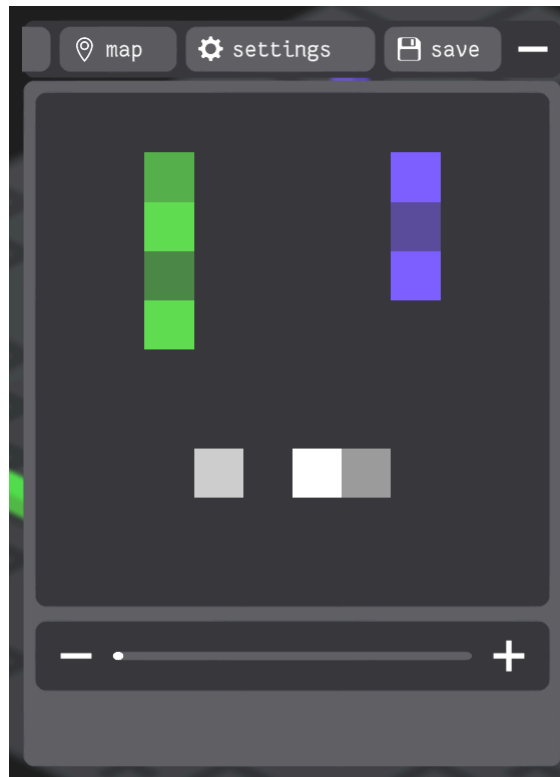
This tab manages your deals with other players. The top bar includes:

- **Hand icon:** Shows how much stock you currently hold in all your Cities.
- **Bag icon:** Shows the stock pending refund from nullified deals.
- **Player dropdown:** Select which player to interact with (defaults to your icon).



If your icon is selected, you can forfeit the match by dragging the slider across (*Image A*). If you select another player's icon, you can click the plus icon to create deals (*Image B*) by dragging agreement tokens (e.g., stock, armistice) into the deal box (*Image C*). Existing deals will also appear here, and you can nullify or edit them as needed (*Image D*).

## The Map Tab



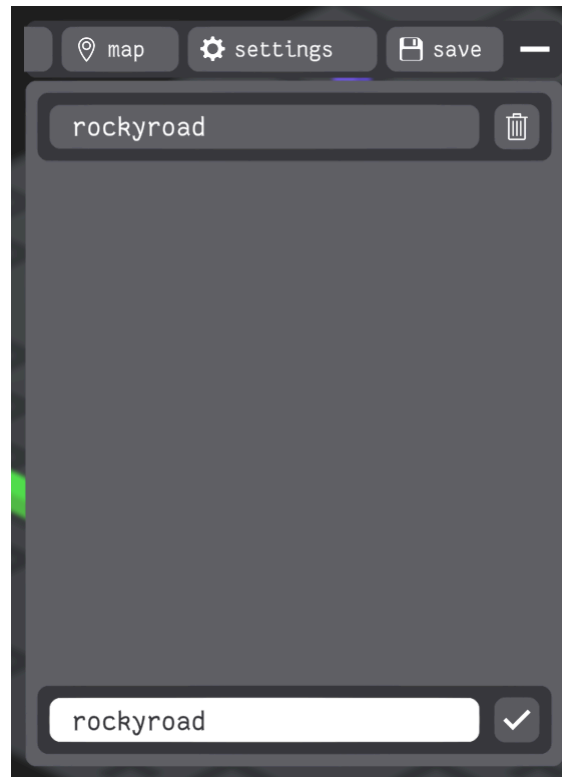
A simple overview of the match map.

## The Settings Tab



Here, you can return to the main menu, exit the match, or adjust settings like volume, animation speed, and keyboard shortcuts.

## The Save Tab



Use this tab to save your game or delete saved files. To load a saved game, return to the main menu from the [Settings Tab](#).

# Keyboard Controls

up	W	left	A
down	S	right	D
cancel	Escape	path	LeftShift
turn	Tab	pause	P

- **W** : Rotate the camera upward.
- **A** : Rotate the camera left.
- **S** : Rotate the camera downward.
- **D** : Rotate the camera right.
- **Escape** : Cancel a movement action (e.g., if you change your mind while moving a tank, press escape to cancel).
  - **Tip:** Right-clicking can also cancel a movement.
- **LeftShift** : Adjust Path creation priority.
  - Pathways are generated using a BFS (breadth-first search) algorithm, prioritizing horizontal movement by default.
  - Hold **LeftShift** and right-click to prioritize vertical movement before releasing to place Path objects.
- **Tab** : End the current player's turn.
- **P** : Open the pause menu.