

Equipment: A square-grid playing surface (of any finite size, but of square shape), two sets of pieces (“gravel”) of different colours.

Play of the game

- At the start of the game the players decide on a value of X , which must be an integer greater than 1. They also decide whether they will play either on the intersection points or in the squares of the grid (choosing squares gives fewer spaces to play in, but more room for the pieces). Either way, the places where the pieces are called “spaces”. Then, each player takes a number of pieces equal to HALF the number of spaces on the grid, plus 1: this is called their Pool.
- A game turn consists of two player turns, one for each player (lighter shade of pieces goes first). In a player turn a player may:
 - PLACE friendly pieces in spaces of the grid. A player may place up to X friendly pieces in spaces on the grid. More than 1 piece may be placed at a time, but a total of no more than X pieces may be stacked in a single space. A piece that is already on the grid may be picked up and placed **either** in another friendly-occupied space **or** placed back in the Pool. A piece that has not yet been placed on the grid may be placed in a vacant space or a friendly-occupied space. No piece may be placed in an enemy-occupied space.
 - REMOVE enemy pieces in spaces of the grid. In the course of a single removal action, a player may remove 1 enemy piece from 1 enemy-occupied space they control. A player *controls* a given space if they have pieces in at least 2 spaces orthogonally adjacent to that space, and which pieces form a majority of all the pieces in all the spaces that are orthogonally adjacent to that space (but not in the space itself!). See example below. A player may make more than 1 removal action against the same enemy-occupied space in the same turn, removing 1 piece each time. Keep track of the total number of removed enemy pieces to check against game end conditions.
- A player will choose whether they will **place** pieces first and then **remove** them, or vice versa; the two may not be mixed (all actions of the first type chosen must be finished before changing to the second type).
- The **combined** total number of friendly pieces placed and enemy pieces removed must be equal to or less than X (so if $X = 6$, a player could place 4 pieces and make 2 removals, or 3 of each, or any other combination that adds to at most 6).
- A player may not pass; at the very least, a player must place 1 piece during their turn.

Game end

- Check for game end at the end of each game turn. The game ends immediately if one player satisfies either or both of the following loss conditions:
 - attrition*: more than **half** of the player’s starting pieces have been removed (round up); OR
 - territory*: the player’s pieces are occupying fewer spaces than the number of their pieces that have been removed.
- If both players are satisfying one or both conditions at this time, the game ends in a draw. The game also ends in a draw if both players are both unable to expand their territory and remove any enemy pieces.

E.g. it is the end of a turn, and one player has lost 12 pieces and occupies 10 spaces. They lose the game on territory.

Notes

Years ago I had an idea for a Go variant where the single stone played each turn could be broken up into smaller bits with lesser power (stones make gravel, see) and played on other points of the Goban so captures would be probabilistic: you would make a capture by generating a random result equal to or less than your cumulative strength differential. This is not quite that of course; the idea of “control” over a space relying only on occupation of its flanks and rear is inspired by games like *Ki* (Corey Clark, 2010) and *Control* (Takuro Kawasaki, 2024) though those games forbid placement in an enemy controlled space. Placements and removals in the game must be balanced, especially early on, and there is a crucial difference in placement between pieces that are already on the grid versus those that are coming from the pieces not yet placed. The choice of whether to place or remove first can be important; a player might want to first build up to attack a swath of territory or they might want to clear some points of enemy then follow it up with occupations. Playing in the squares of an 8x8 checkerboard and setting X to 4 or 5 will give players a peppy 10-15 minute game.

	●	●		
●●	○ “A”	○ “B”	● “C”	
	○	○	○	

Control example: Dark controls space “A” because they have a total of 3 pieces in spaces orthogonally adjacent to the space, versus 2 Light pieces (note the piece in space “A” itself is not counted). No one controls space “B” (equal numbers of pieces in squares orthogonally adjacent to it). Light controls space “C” because there are no Dark pieces orthogonally adjacent to it at all, and Light has pieces in 2 orthogonally adjacent spaces.