

# Argonaut

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Argonaut is an automated opponent for Pipeline, simulating the key interactions one would have with another player.

## Setup

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Take an unused player disc for Argonaut, and place it on the turn order track.

Argonaut does not use a player board, and has no starting resources.

## General Rules Changes

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- Argonaut never pays for anything it takes or discards.
- Argonaut never receives penalty cubes.
- Argonaut ignores end game scoring/valuations.
- Argonaut's oil is always considered High-Grade.
- When fulfilling Orders/Contracts Argonaut's oil is considered wild. I.e. the color does not matter.

## Turn Structure

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Argonaut's turns consist of one, or two phases: the Action Phase, and the Contract Phase.

The Action Phase always occurs. During this phase Argonaut will attempt to conduct the indicated action, receiving payment if the action fails.

The Contract Phase however, only occurs after actions where the bot may have oil in its supply and unfulfilled contracts.

## Action Phase

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During the Action Phase Argonaut will attempt to take the indicated action, and may, depending on the action, manipulate turn order.

The possible actions are as follows:

- **Government Tiles**
  - Discard 2 tiles from an open quadrant
  - **Quadrant Selection:** Begin at the top-left quadrant and move clockwise until a valid quadrant is found - i.e. an open quadrant containing tiles.
  - **Tile Selection:** Begin at the top left space of the quadrant and proceed clockwise until two tiles have been discarded.
  - **Contract Phase Follows?** No.
  - **Turn Order Change Possible?** No.
- **Upgrades**
  - Discard the lowest level, available upgrade of the first (from left to right) open row.
  - Mark the selected upgrade row as unavailable.

- If this action is unable to be completed, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** No.
- **Turn Order Change Possible?** Yes.

## • Tanks & Pipes

- Discard the two cheapest tanks (if any available).
- Discard two random pipes (if any available).
- If both steps are unable to be completed, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** No.
- **Turn Order Change Possible?** Yes

## • Machines & Pipes

- Discard the cheapest machine (if any available).
- Discard two random pipes (if any available).
- If both steps are unable to be completed, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** No.
- **Turn Order Change Possible?** Yes.

## • Contracts & Loans

- Take the leftmost available contract of the level Argonaut has least of.
- If tied, preference is as follows: High-Grade > Mid-Grade > Low-Grade.
- Bot receives \$15, but no penalty cube.
- **Contract Phase Follows?** Yes.
- **Turn Order Change Possible?** Yes.

## • Orders

- Attempt to fulfill leftmost order of indicated level (bot's oil is considered high-grade refined, and may be used as any level).
- If the action is unable to be completed, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** No.
- **Turn Order Change Possible?** No.

## • Refined Markets

- Bot sells as much as possible, beginning with the highest priced space.
- Bot purchases indicated amount of crude oil from selected market (if possible).
- If the action is unable to be completed, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** Yes.
- **Turn Order Change Possible?** No.

## • Crude Market

- Bot purchases indicated amount of each oil (if available).
- If no oil is purchasable, bot receives payment according to difficulty selected.
- **Contract Phase Follows?** Yes.
- **Turn Order Change Possible?** No.

# Contract Phase

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During the Contract Phase, Argonaut will attempt to fulfill any unfulfilled contracts (contracts may be partially fulfilled). Selection priority is as follows:

- Highest value spaces > High-Grade Contracts > Mid-Grade Contracts > Low-Grade Contracts

## Difficulty

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### Easy

- Argonaut receives \$20 for failed actions.
- Argonaut receives penalty cubes for loans and failed contracts.

### Normal

- No change

### Expert

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- Argonaut keeps all machines, tanks, upgrades, and pipe tiles it takes, scoring them at the end of the game as follows:
  - Pipes: \$10/tile
  - Tanks: \$10/tank
  - Machines: \$20/machine
  - Upgrades: \$20/upgrade
- Argonaut scores \$20 for each oil in it's supply at the end of the game.