The Gemini Card Game
Rule book

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Overview

Gemini Card Game is a cooperative game for 2 to 4 players who work together to complete science programs over the course of 2 week turns for a semester. Experience the complex decisions required to run a world class observatory and the excitement of contributing to a team as you provide researchers with their precious data and contribute to expanding the knowledge of the Universe.

The objective

Collectively, all the players work to complete the required number of Band-1 programs and as many additional programs as possible in 12 rounds (i.e., a semester), all while avoiding running out of Reputation Points resulting in loss of funding and losing the game.

Components

- Weather Deck:
  - 15 Weather Condition cards
  - 4 Special Condition cards

- Instrument Deck:
  - 8 Instrument cards
  - 1 AO system cards

- Player Deck:
  - 11 Program cards
  - 19 Target cards
  - 25 Time cards
  - 1 Checkouts/Poor Weather card
- 4 Role cards
- 2 Rule cards

- Paperclip or small token to mark reputation (not included)

Game Setup

Choose a scenario

The game includes one double-sided game scenario card for the "Basic Game". Additional scenario cards will be included in future expansions. Each side of the "Basic Game" is designated for a specific player count. Turn the card to the appropriate side.

The basic game starts with 4 Reputation points, so use a small item or paperclip as an indicator of current Reputation status on the scenario card. If special red-print conditions on Weather Condition cards, Target cards, or Telescope Time cards are not satisfied in the required time, a Reputation point is subtracted from the total. Indicate this by adjusting the marker on the scenario card. If the Reputation points get down to 0 before the end of the game, funding is lost and everybody loses. If the required number of Band-1 programs are not completed by the end of turn 12, subtract 2 Reputation points for each missing program. Once again, if this causes the Reputation points to reach 0, funding is lost and everybody loses.

Setting up the playing area

1. Distribute one Role card randomly to each player or allow each player to choose if you wish. If you are playing with only 2 players, each player takes 2 roles each (and each role plays once per round).
2. Choose a person to be the first player, usually the player with the Instrument Engineer role.
3. Shuffle the Weather deck, and place it face down near the first player.
4. Place the Checkouts/Poor Weather program card in the center of the table with the Checkouts side facing up.
5. Shuffle the Instruments deck, and place it face down. Turn 2 instrument cards facing up near the deck.
6. Shuffle the Player Deck and deal 5 cards to each player (add +1 if you are 3 players). Place the remainder face down as the Draw deck.
7. Complete any scenario specific setup steps. For example, the Basic Game has a Reputation Track that needs a marker to be placed at the start position.

Game Turn

At the start of each round, the first player draws one card from the Weather deck and displays it in a fanned-out pile next to the deck (as illustrated to the right) in a way that the top of each weather card can still be seen. This is useful to keep count of the rounds! If it is a special condition, please read and follow the text.

Each round, players take their turns in a clockwise direction.
Each player's turns proceed as follows:

1. Draw cards from the Player Deck to replenish your hand to your hand limit (usually 5 cards for 2 or 4 players, 6 for 3 players).
2. The player may use their role ability or Instant cards in their hand at any time during their turn.
3. The player may perform one of the following actions (two if allowed by a card such as "Best" weather conditions):
    a. Discard your entire hand
    b. Move an instrument card
        i. From the available face-up instrument cards next to the Instrument deck
        ii. From an active program to another
        iii. Swap between two active programs
        iv. From an active program back to the bottom of the Instrument deck
    c. Activate a new program by placing it in the center of the table
    d. Play a Target card on an active program
    e. Play a Time card on a target if:
        i. Weather allows
        ii. Target site matches instrument site
        iii. Instrument type matches program type
        iv. Target AO mode matches instrument and program
4. Check to see if any Program was completed and if so, do the following:
    a. Make a free Instrument move from the completed program to any valid active Program OR ELSE discard the Instrument to the bottom of the Instrument deck.
    b. Discard all Target and Time cards to the Player Deck discard pile.
    c. Place the Program card in a score pile.

Activating a program

A player can activate a program by playing a Program card from their hand to the center of the play area. Programs can be Band 1, Band 2 or Band 3.
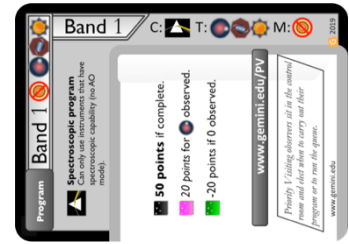
Moving an Instrument card

Instrument cards are played by moving an available Instrument card from either the available face-up instrument cards next to the Instrument deck or another program to an active program, or it can be swapped between active programs, or can be discarded from a program to the bottom of the Instrument deck.

If an Instrument is moved from the available face-up instrument cards next to the Instrument deck, draw another Instrument from the Instrument Deck to replace it.

Players should try to match the features of the instrument with the requirements of the Program to ensure Time may be properly allocated to targets on this Program. You should match the capabilities such as imaging or spectroscopy and AO capabilities.

Playing a Target card

Target cards are played from a player's hand to an active program. A Target card can be played on a program, even if that program still does not have an Instrument card associated.

Only one Target card can be actively observed on a Program at one time. If the previous Target is not completed when you play a new Target card on a Program, that old Target and all Time allocated to it must be discarded.

Programs require a specific number of targets of given types to complete. The player should also be careful to match the AO status and observing site restraints are matching the assigned Instrument, if any. Players should also match the Target type with the completion requirement of the Program.

Note that when a program changes the Instrument, the North or South constraint of the new instrument applies to only the active incomplete Target card being observed and only effects future time cards allocated to the Target.

Playing a Time card

Time cards are played on Target cards. There are many conditions that need to be met before playing a Time card:

1. the Checkouts program has been completed
2. weather allows observing on the target type
3. target site matches instrument site (N/S)
4. instrument type matches program type
5. target AO mode matches instrument and program

Time cards can only be played on the last Target card associated with a program.

Completing a Target

A Target is complete when the total of all the time cards played on the Target card is equal to or greater than the required time printed in the top right of the Target card.

Completing a Program

A Program is complete when there are completed targets on the Program that satisfy the objective printed on the Program card.

When a program is completed, the Player may make a free Instrument move from the completed program to any valid active Program OR ELSE discard the Instrument to the bottom of the Instrument deck.

Then discard all Target and Time cards to the Player Deck discard pile and place the Program card in a score pile.

Game End & Scoring

End of the game

The game ends either at the end of 12 rounds (i.e., a semester), or if an End game condition is satisfied from the chosen scenario.

In the Basic game, when the players lose all their Reputation points, funding is lost and everybody loses. Now count the number of Band-1 programs that are completed in your score pile, subtract one Reputation point for each missing program. Once again, if this causes the Reputation points to reach 0, funding is lost and everybody loses.

Counting the points

Each completed program gives points. Each partially complete programs give some points. Each incomplete program subtracts points. If the objective is not met, there might be penalties that need to be applied to the Reputation points, check the scenario card.

If you run out of Reputation points before or after the end of the game, everybody loses. If there is at least one point left, refer to the Objective Card to see what level of Victory was achieved.

Optional Rules

Made a booboo

Sometimes, we make mistakes. For example, we put time on the Poor Weather program while there were no instruments attached to it. Or we put time on a Northern target using a Southern instrument.

There are many things to monitor, and it may take few rounds before we realize our mistake, in which case we cannot undo it easily. To proceed after an unrecoverable mistake, here are the steps:
1. Fix the mistake in a way that will make sense from that point forward. For example, move the instrument in the right place, or remove the time from a target observed with the wrong instrument.
2. Subtract one reputation point from the Reputation Track.

Note that this procedure is for honest mistakes only, and should not be used as a strategy to optimize your play.

Type of cards

Weather condition cards

They are part of the Weather deck. They are weather condition, which constrains which Target type and Observing mode (AO or not) can get telescope time. The cards are:

Best (IQ20, CC50): Can observe all targets and use the AO mode. Also, everybody plays twice during the round.

Great (IQ70, CC50): Can observe all targets and use the AO mode.

Good (IQ70, CC70): Can observe Intermediate targets or brighter.

Poor (IQ85, CC80): Can only observe Bright targets.

Special conditions

They are also part of the Weather deck. They are:

Storm: No Time card can be played on programs observing Northern targets for a complete round.

Earthquake: No Time card can be played on programs observing Southern targets for a complete round.

Shutdown (North): No Time card can be played on programs observing Northern targets for the complete next round.

Shutdown (South): No Time card can be played on programs observing Southern targets for the complete next round.

If a Storm or an Earthquake is played on the first round, it goes to the back of the pile and another one is picked.

When a Shutdown card is drawn, it is placed next to the face-up stack of Weather cards to signal that a planned shutdown is scheduled for next turn, and then draw another Weather card for the current round. On the next round, a new Weather card is drawn, but it only affects the site that is not in Shutdown, as no time card can be played on programs observing from the site undergoing scheduled Shutdown.

Example of a Weather card:
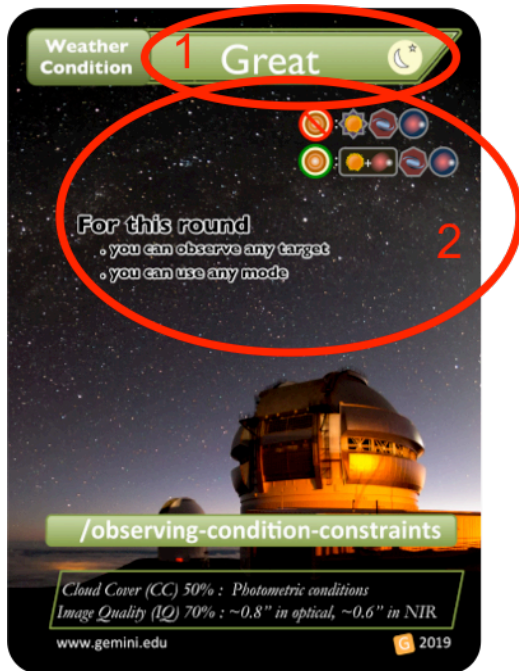
1: Header with type and icon

2: Observing constraints for the round

Example of an Instrument card:

1: Name of the instrument

2: Site of the instrument

3: Capability(ies)

4: Accepted AO mode(s)

AO system cards (like Altair), enable AO observations with instruments that can be used with AO, but do not have AO mode already.

Instrument cards

They form the Instrument deck. They are representing the Gemini instruments that need to be attached to programs before any target can be observed. They can have one of the following capabilities:

Imaging: Can be attached to programs requiring Imaging mode.

Spectroscopy: Can be attached to programs requiring Spectroscopic mode.

Imaging AND spectroscopy: Can be attached any programs requiring Imagning or Spectroscopic mode.

They may or may not be used in AO mode. Some instruments:

Cannot be used in AO mode[1]: The instrument cannot be used to observe targets in AO mode.

Can be used in AO mode: The instrument can only be used to observe targets in AO mode if it is combined with an AO system (e.g., Altair).

Can only be used in AO mode: The instrument can only be used to observe targets in AO mode.

Some instruments are located at:

Gemini North: Can be only used to observe northern targets.

Gemini South: Can be only used to observe southern targets.

Both: Can be used for any target!

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[1] Some of the instruments that have the symbol "No AO", like F2 and GMOS, are planned to be used using AO in the future. Future game sets may be updated accordingly.

Target cards

Observing targets is necessary for completing programs. Targets cards are part of the Player deck. Most of them have two sides, one for non-AO, and another for AO mode. Targets can be:

Primary - Can only be played in Great or Best weather conditions. They have special conditions (ToO, restricted R.A., only AO, etc.)

Secondary - Can be played in Good, Great or Best conditions. They take less time to complete if observed in AO mode

Bright - Can be played in any conditions, unless they are played in AO mode, in which case they are considered like Bright-Primary targets
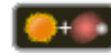
Some also have a DEC (North or South) constraint, which means that they can only be observed by instruments that are either in the North or in the South. They share the same N, S and N/S icons as the Instrument cards.

Example of a Target card:

1: Header for no AO mode
   with target type and total required observing time

2: Header for AO mode
   with target type and total required observing time
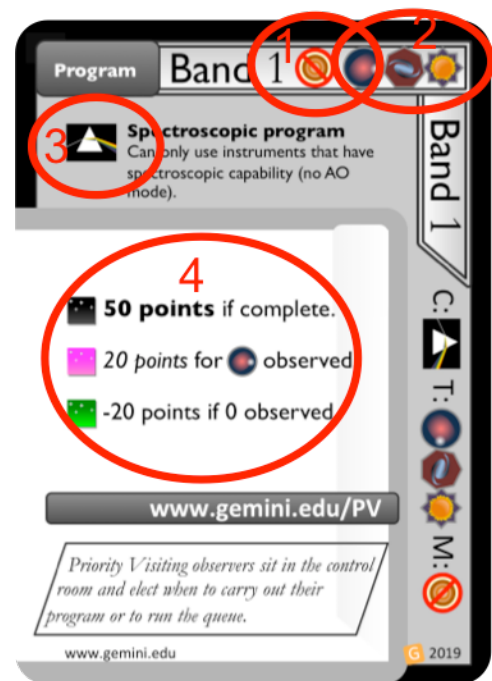
3: Site from where the target is available

Time cards

Time cards a also part of the Player deck. They can be of 1, 2, 3 or 5 hours. They can be played on Target cards only when conditions allow (see Playing time card section).

Example of a Time card:

1: Time added to the total observed on a given target

Example of a Program card:

1: AO mode(s) allowed

2: Target(s) required

3: Capability required

4: Program completion points

Note how the AO mode(s), Target(s) and Capability required are repeated on the side of the card, so they are still readable once the card is played on the horizontal (i.e., when the program is activated).

Program cards

Programs cards are part of the Player deck. They can be in Band 1, Band 2 or Band 3. The band determines mostly the point value given at the end of the game when they are completed. Each program card contains information on what is required to observe and complete it. They have:

1. the possible AO modes (no AO 🔴 , AO 🟢 or either ⊘)
2. the type of observation required (Imaging 🖼️ or Spectroscopy 🔺)
3. the Target types to observe (Primary 🔵 , Secondary 🔴 or Bright ☀️)
4. total points earned when completed partially 🟪 or totally ⬛
5. total points lost when not enough targets are observed 🟩

Special cards

The Checkouts/Poor Weather card

The Checkouts/Poor Weather card is a Program card.

- The Checkout side is played at the start of the game. It has a target embedded, so it only requires an Instrument card attached to put Time on. Once it is completed, it flips over to the Poor Weather side. The instrument card stays on the card on after the flip.
- The Poor Weather side can get Time under any weather condition, as long as an Instrument card is attached to it. Every hour on the Poor Weather card is worth 2 points.

Altair

Altair is part of the Instrument deck. Unlike the other instrument, it is a separate AO system. It allows instruments that are compatible with AO to observe targets in AO mode.

It moves like any other Instrument card. However, it is not attached to a program just by itself. It instead gets attached to an instrument that has the AO mode available (🚫).

Moving Altair from the Instrument deck to an instrument is free of action!

Once the program observed using Altair is completed, the Altair card goes under the Instrument deck, as it cannot be moved with the instrument to another program.

This figure shows Altair coupled with GNIRS.

Visiting instruments

A certain number of Visiting Instrument cards has been distributed in some pre-release expansion packs. They can be mixed with the other instruments in the Instrument deck. They, however, are played with some additional rules:

1. Visiting Instruments cards cannot be moved from their program to another.
2. Once the program is complete, the Visiting Instrument card is removed from the game.
3. Visiting Instrument cards can be played even when there are already 4 instruments already at play.
4. There can be only one Visiting Instrument card at play at a time.
5. There is a limit of 3 Visiting Instrument card that can be added to the Instrument deck per game.

Instant cards

Instant cards can be played by the player at any time. The action written on the card is activated immediately, or as described on the card.