

THE GEMINI CARD GAME ON TABLETOPIA

Rule book v1.2

Game & Graphic Design: André-Nicolas Chené

Development: André-Nicolas Chené, Jerry Brower,

Odysseus Quarles, Joy Pollard

Social media: #GeminiCardGame

Website: noirlab.edu/public/card-game









Overview

The 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

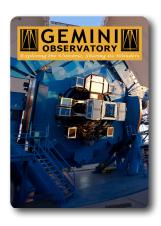
Collectively, all the players work to complete the required number of Band-1 programs and as many additional programs as possible in 12 rounds (or one semester), all while avoiding running out of Reputation Points resulting in loss of funding and losing the game.

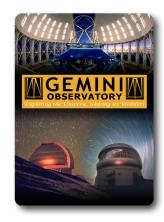


Components

- Weather Deck (WD):
 - 15 Weather Condition cards
 - 4 Special Condition cards
- Instrument Deck (ID):
 - o 8 Instrument cards
 - o 1AO system card
- Player Deck (PD):
 - o 11 Program cards
 - o 19 Target cards
 - o 25 Time cards







- 1 Checkouts/Poor Weather card
- 4 Role cards
- 1 Reference cards
- Small token to mark reputation

Game Setup

Game scenario

The Scenario card is already placed on the table. The objectives are different for games played by 2-4 or 3 players.



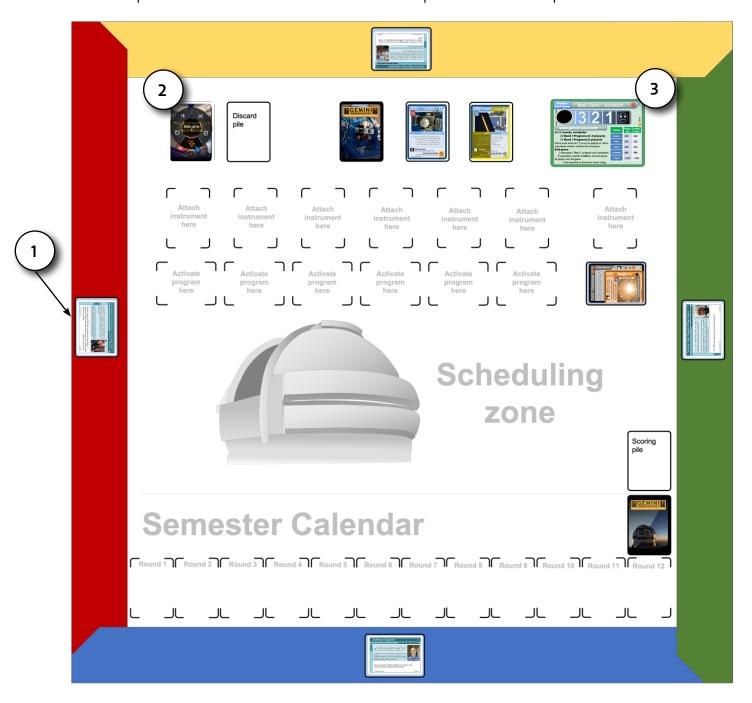


The basic game starts with 4 Reputation points. A token is used as an indicator of current Reputation status on the scenario card. If the special conditions in "red-print" on Weather Condition cards, Target cards, or Time cards are not satisfied in the required time, a Reputation point is subtracted 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

- Each player picks one Role card from the center of the table and places it in front of them. If you are playing with only 2 players, each player takes 2 roles each (and each role plays once per round). If the Instrument Engineer role was chosen, that player goes first, or determine first player randomly for a more challenging game.
- 2. Deal 5 cards to each player (6 if you are 3 players). If a player's roll allows them to hold additional cards they should draw up to their maximum.
- 3. 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.



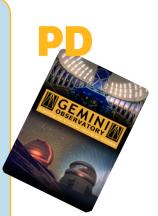
Game Turn

At the start of each round, the first player draws one card from the WD and places it in the Semester Calendar, over the first available Round slot. This is useful to keep count of the rounds! If it is a Special Condition card, please read and follow the text.

Semester Calendar Round 6 Round 7 Round 8 Round 9 Round 10 R

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

- 1. **Draw cards** from the PD to replenish your hand to your hand limit (5 cards for 2 or 4 players, 6 for 3 players).
- 2. The player may use their <u>role ability</u> or <u>Instant cards</u> 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 their entire hand
 - b. Move an Instrument card
 - i. From the face-up ID
 - ii. From an active program to another
 - iii. between two active programs
 - iv. From an active program back to the bottom of the ID
 - c. Activate new program place it in the center of the table
 - d. Play a <u>Target</u> 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** for completed programs, and if so, do the following:
 - a. Make a free Instrument move from completed program to any valid active Program OR discard to the bottom of the ID.
 - b. Discard all Target and Time cards to the PD 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 Scheduling Zone. Programs can be Band 1, Band 2 or Band 3.





Moving an Instrument card

Instruments are played by moving an available Instrument card from either the available face-up Instrument cards next to the ID 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 ID.

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

Players need 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

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

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 card and all Time cards allocated to it must be discarded.

Programs require a specific number of targets of given types to complete. In addition, the player must also match the AO status and observing site constraints to the assigned Instrument card, if any. Players should also match the target type with the completion requirement of the program.



Note that when you chanage a program's Instrument card, 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

In order for programs to be completed Time cards must be played on the Target cards in the amount required. 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. Any time that is over the required amount can not be applied to a different target (it has already been applied to the target you played it on).

Completing a Target

A Target is complete when the total of all the Time cards placed 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 discard the Instrument card to the bottom of the ID.

Then discard all Target and Time cards to the PD 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. Note, one round consists of a number of turns equal to the number of players in a 3 or 4 person game, or 4 turns (one for each role) in a 2 person game.

In the Basic game, if the Reuptation points track is at 0 at the start of a turn, all funding is lost and the game is over. If there are still reputation points left at the end of the game, count the number of Band-1 programs that are completed in the score pile, subtract one Reputation point for each missing program (4 total). If this causes the Reputation points to reach 0, funding is lost and everybody loses.

Counting the points

Each completed program earns points. Each partially completed program earns some points. However, each incomplete program also subtracts points. In addition there may be more penalties for failing to meet an objective. 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, everyone wins! Check the Scenario card to see just how awesom your victory is. (Can you improve your score next semester?)

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 a 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 to the right place, or remove the time from a target observed with the wrong instrument.
- 2. Subtract one reputation point from the Reputation Track.

To err is human. Address the issue and move on, but if you feel the game was made too easy (or difficult) by the mistake consider adjusting your reputation accordingly for the start of the next game. There is always another semester!

Tricks in Tabletopia

Looking for a card

One occasionally needs to search a deck for a specific card. Because Tabletopia does not offer an option to do this automatically, it has to be done manually. Here is a suggested sequence:

- 1. Right click on your hand, and "Select all".
- 2. Flip your hand.
- 3. Grab your hand, and move it to the table. Make sure to avoid overlapping those cards with any other on the table.
- 4. You may make a pile for your convenience. You can hold shift to select many cards.
- 5. Draw a large number of cards from the deck to your hand. Repeat until you find the card you are looking for.
- 6. Follow the rules to play the card you found.
- 7. Select all your hand, flip it & place it (carefully) on the table.
- 8. Put all the cards back in the deck.
- 9. Shuffle the deck.





Put a card at the bottom of a deck

To put a card at the bottom of a deck, hold Shift while adding the card.

Set "turn-based" mode





The default mode is "Free-for-all", which means that the game will not tell you who's turn it is. If you want to see who's turn it is, and who It goes to next, you can change to "Turn-based Clockwise". To do so, click on the trowel icon, and select "Turn-based Clockwise". The icon will change to a clockwise curved arrow.

Access Tabletopia documentation for additional basic commands.

Type of cards

Weather condition cards

They are part of the WD. 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 <u>all</u> targets and use the AO mode.
 Also, everybody plays **twice** during the round.
- C* 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 WD. They are:

- Storm: No Time card can be played on programs observing Northern targets for the round.
- Earthquake: No Time card can be played on programs observing Southern targets for a round.
- Shutdown (North): No Time card can be played on programs observing Northern targets for the next round.
- Shutdown (South): No Time card can be played on programs observing Southern targets for the next round.

Example of a Weather card:



Header with type and icon
 Observing constraints for the round

If a Storm or an Earthquake is played on the <u>first round</u>, it goes to the back of the pile and another one is picked (note this iwill not happen when playing with the Starting Weather card...

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.

Instrument cards

They form the ID. They represent the Gemini instruments that need to be attached to programs before any target can be observed.

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!

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 Imaging or Spectroscopic mode.

Example Instrument card:



- Name of the instrument
- 2. Site of the instrument
- 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.

They may or may not be used in AO mode:



Cannot be used in AO mode¹: 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.

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 PD. 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 declination (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.

Time cards

Example of a Time card:



 Time added to the total observed on a given target

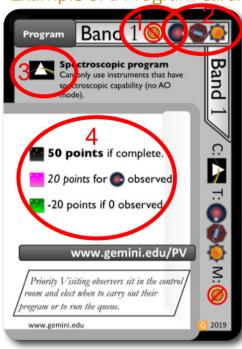
Example of a Target card:



- 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 are also part of the PD. 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 on pg7).

Example of a Program card:



- 1. AO mode(s) allowed
- 2. Target(s) required
- 3. Capability required
- 4. Program completion points

Program cards

Programs cards are part of the PD. 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

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).

Special cards

Checkouts/Poor Weather card

The Checkouts/Poor Weather card is a Program card.



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 ID. 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 ID to an instrument is a free action!

Once the program observed using Altair is completed, the Altair card goes under the ID, 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 ID. They, however, are played with some additional rules:

- 1. Visiting Instrument 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 in play.
- 4. There can be only one Visiting Instrument card in play at a time.
- 5. There is a limit of 3 Visiting Instrument cards that can be added to the ID 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.