



## Software Glitch



The software on the Large Area Telescope failed, and must be reprogrammed.

*Your opponent loses a Satellite or Object card. You choose and discard one of those cards from his or her hand, and place it in the Discard Pile.*





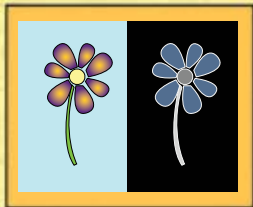
## Shake n' Bake

A

An instrument did not pass the heat and vibration testing to prepare for launch.

*Your opponent returns any Satellite or Object card from the mat to his or her hand.*





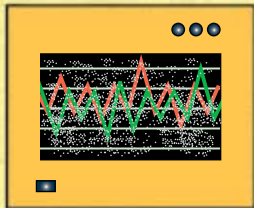
## False Positive

A

Fermi detected a potential gamma ray, but it turned out to be a cosmic ray.

*Your opponent loses 2 turns.*





## Interference

A

Solar activity  
prevented Fermi from  
obtaining data.

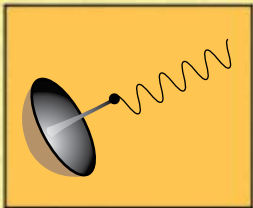
*Take any 2 cards from  
your opponent's hand.*



**A**

## Disorientation

Your opponent's satellite received signals from many different spots, and doesn't know where to point.



*You discard one of your opponent's Action cards. Place it in the Discard Pile.*





## Lead Scientist



A lead scientist was assigned to another project.

*Your opponent loses an Experience card.  
You choose the Experience card, and  
place it in the Discard Pile.*





## Funding Boost

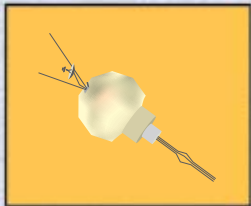
Your proposal for further testing has been accepted, and NASA agrees to raise your budget.



*Play another turn.*







## Eureka!

You found a faster  
and better analysis  
process for your data.

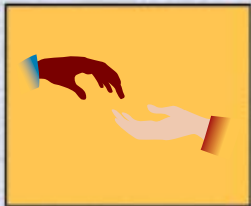
*Discard 2 cards of your choice, and  
draw 2 cards from the Draw Deck.*





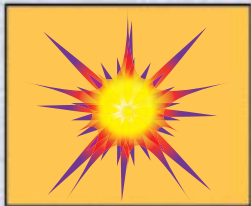
## Cooperation

The testing deadline is approaching. You cooperate with your opponent to get Fermi ready on time.



*Trade one card with your opponent.  
You both can choose which cards to  
trade.*





## Unexpected Gamma-Ray Burst

An unexpected burst occurred, and your satellite caught it!

*You can play a Satellite or Object card - you do not need the required Experience cards.*





## ED Team Up



The Educators collaborated and did a workshop on Fermi at the National Science Teachers Association meeting.

*Choose any card from the Draw Deck and then shuffle the deck.*





## Unexpected Event

AI

The Science Team made huge progress in the construction of the Large Area Telescope towers.

*Cancel the effect of an Action played by your opponent. This card can be played at any time during your turn or your opponent's turn.*





## Factoid

The Fermi satellite's orbit is about 560 km in altitude.



*You can add up 1 point toward your next object.*

**1**





## Factoid

Intense flashes of invisible light come from the edge of the cosmos.



*You can add up 1 point toward your next object.*

1





## Factoid

Fermi's Gamma-ray Burst Monitor has 2 types of detectors to detect powerful bursts in a wide energy range.

E

*You can add up 2 points toward your next object.*

2







## Factoid

Gamma-ray astronomy studies the most energetic objects and phenomena in the Universe.

E

*You can add up 1 point toward your next object.*

1





## Factoid

Fermi orbits the Earth once about every 90 minutes.



*You can add up 2 points toward your next object.*

**2**





## Factoid

The Fermi Gamma-ray Burst Monitor has 14 different detectors.



*You can add up 2 points toward your next object.*

**2**





## Factoid

The Fermi Large Area Telescope sees almost one quarter of the sky at all times.



*You can add up 5 points toward your next object.*

**5**





## Factoid

The Fermi Large Area Telescope sees almost one quarter of the sky at all times.



*You can add up 2 points toward your next object.*

**2**





## Factoid

Fermi supports 10 Educators who teach about Fermi science around the country.



*You can add up 1 point toward your next object.*

1





## Factoid

The Large Area Telescope data provide high resolution maps of the gamma-ray sky.



*You can add up 3 points toward your next object.*

**3**





## Factoid

The Fermi Large Area Telescope sees almost one quarter of the sky at all times.



*You can add up 5 points toward your next object.*

**5**







## Factoid

Fermi's Gamma-ray Burst Monitor has 2 types of detectors to detect powerful bursts in a wide energy range.



*You can add up 5 points toward your next object.*

**5**





## Factoid

There are 2 instruments on board Fermi: the Large Area Telescope, and the Gamma-ray Burst Monitor.



*You can add up 1 point toward your next object.*

1





## Factoid

The Fermi satellite's orbit is approximately 560 km in altitude.



*You can add up 3 points toward your next object.*

**3**





## Factoid

The Fermi team is composed of scientists from around the world.



*You can add up 2 points toward your next object.*

**2**





## Factoid

The Fermi mission is designed to last at least 5 years.



*You can add up 2 points toward your next object.*

2





## Factoid

Gamma-ray astronomy studies the most energetic objects and phenomena in the Universe.



*You can add up 3 points toward your next object.*

**3**





## Factoid

The Fermi Gamma-ray Burst Monitor has 14 different detectors.

E

*You can add up 5 points toward your next object.*

5





## Factoid

The Large Area Telescope and Gamma-ray Burst Monitor are the two Fermi instruments.



*You can add up 3 points toward your next object.*

**3**







## Factoid

The Fermi mission studies powerful objects and explosive events.



*You can add up 1 point toward your next object.*

1





## Factoid

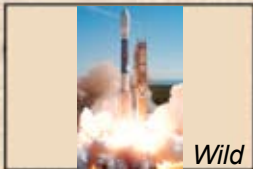
Fermi orbits the Earth once about every 90 minutes.

E

*You can add up 2 points toward your next object.*

2





Wild

## Factoid

Fermi launched on a Delta rocket from Cape Canaveral, Florida on June 11, 2008.



*You can add up 2 points toward your next object.*

2





*Wild*

## **Factoid**

The Fermi team is composed of scientists from around the world.



*You can add up 5 points toward your next object.*

**5**





## Factoid

The Large Area Telescope is an imaging wide field-of-view telescope.

E

*You can add up 2 points toward your next object.*

2





## Factoid

The Large Area Telescope has 16 towers of detectors.



*You can add up 3 points toward your next object.*

**3**





Wild

## Factoid

The Fermi mission studies powerful objects and explosive events.



*You can add up 5 points toward your next object.*

5





Wild

## Factoid

There are 2 instruments on board Fermi: the Large Area Telescope, and the Gamma-ray Burst Monitor.



*You can add up 1 point toward your next object.*

1

