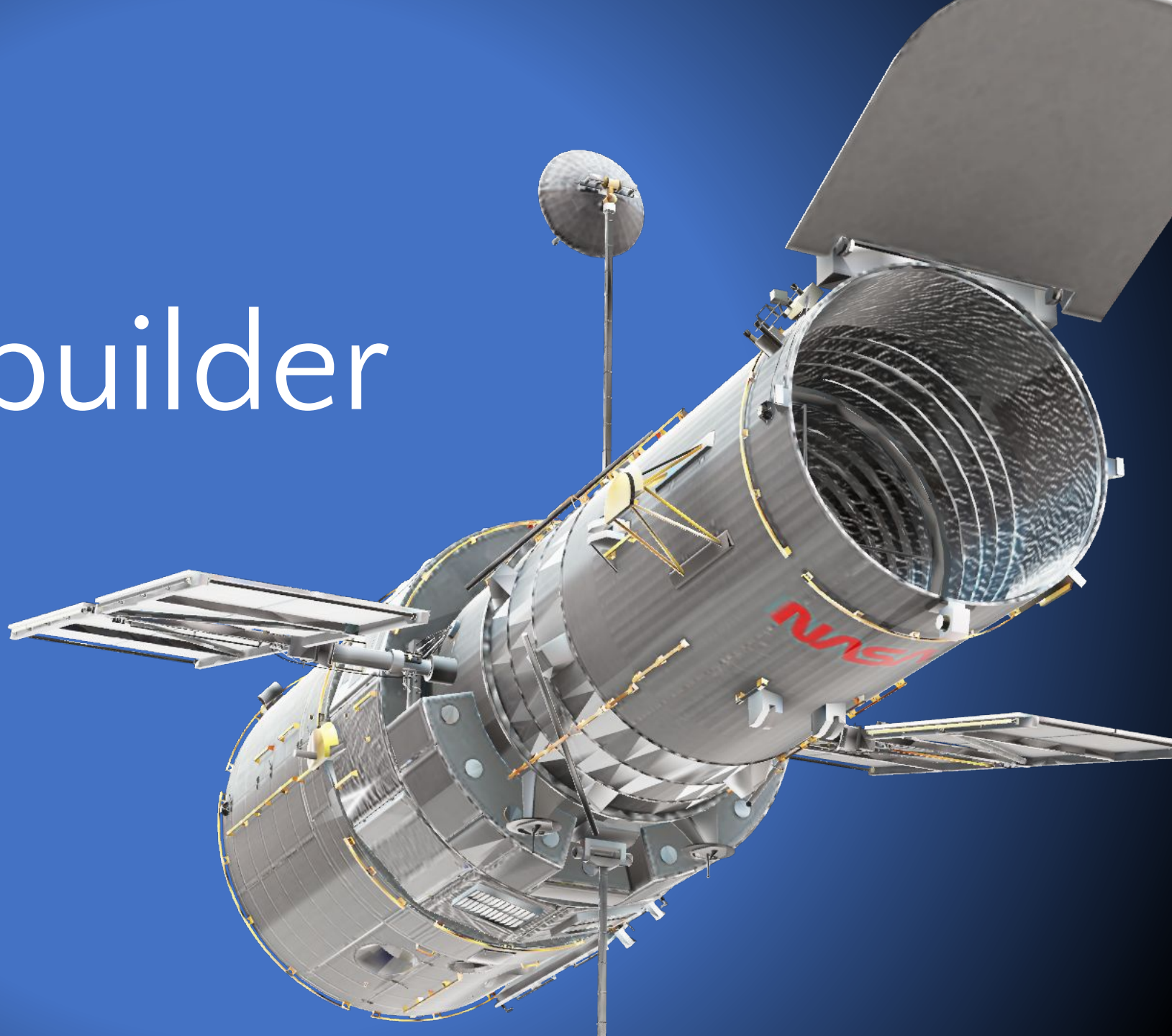


EXOMUNDUS

Planet builder



# PROBLEM

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- ❑ Lack of access to basic astronomy information
- ❑ Time lag in the study of astronomical sciences

What is the biggest difficulty you have today in teaching astronomy basics to your students today?

6 answers

My students have difficulty reading and focusing

Children have a very low level of education in complementary fields such as math, physics, biology, chemistry, geography and the like. They are usually of great interest but a lagged knowledge that hinders the transmission of knowledge.

The difficulty of many students not paying attention to anything other than digital

The visualization of concepts that depend on geometry as elements of the celestial sphere.

The deficiency of basic physics and mathematics required for astronomy.

Understand the classroom to adapt classes (if students better understand kinesthetic, auditory or visual methods)



# PROBLEM

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What is the greatest difficulty you have today in finding astronomy information?

|   |
|---|
| Tempo   |
| maioria em inglês                                   |
| Não   |
| Pouca divulgação, explicação simplificada do artigo |
| Fake news   |
| Conteúdo relevante e de qualidade                   |
| Falta de tempo                                      |
| Falta de material em língua portuguesa              |
| Saber se a fonte é confiável                        |
| fontes seguras                                      |
| Nenhuma   |
| Local com informações claras                        |

|  |
|--|
| Ter acesso às informações                                    |
| Informações com embasamento, origem da informação confiável. |
| Maioria do conteúdo está em inglês                           |
| Pouca exposição no meio comum                                |
| credibilidade  |
| N  |
| Um site específico sobre o assunto com linguagem mais fácil. |
| Confiabilidade das informações                               |
| Confiáveis   |
| Não encontro dificuldade                                     |
| Informação simplificada para leigos                          |
| Dificuldade de validar a informação                          |





# OPPORTUNITY

In 2017, the games sector, which includes board [...], had revenues of \$ 567 million, 6% higher than in 2016, according to the Brazilian Association of Toy Manufacturers. That is, the boards are quickly invading bar tables, YouTube channels and the homes of thousands.

**PEQUENAS  
Empresas  
& GRANDES  
Negócios**

SIGA A PEGN

f

tw

g+

in

Assine já

A partir de  
R\$4,90 por mês

DIVERSÃO E TURISMO

JOGOS

# MERCADO DE JOGOS DE TABULEIRO CRESCE COM EVENTOS, LOJAS E CURSOS

Na Zona Sul, há eventos, lojas e até curso para fabricação de board games

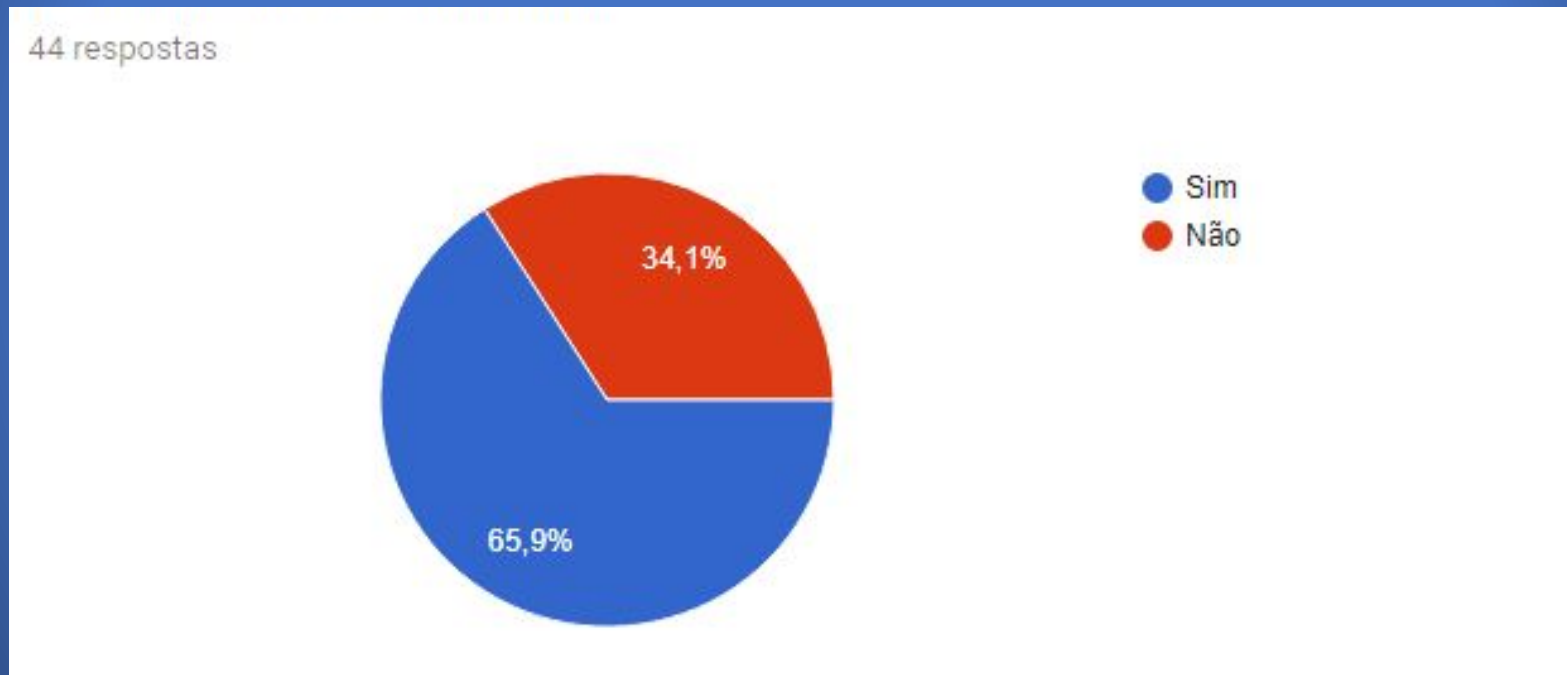
03.09.2018 | Por Agência O Globo



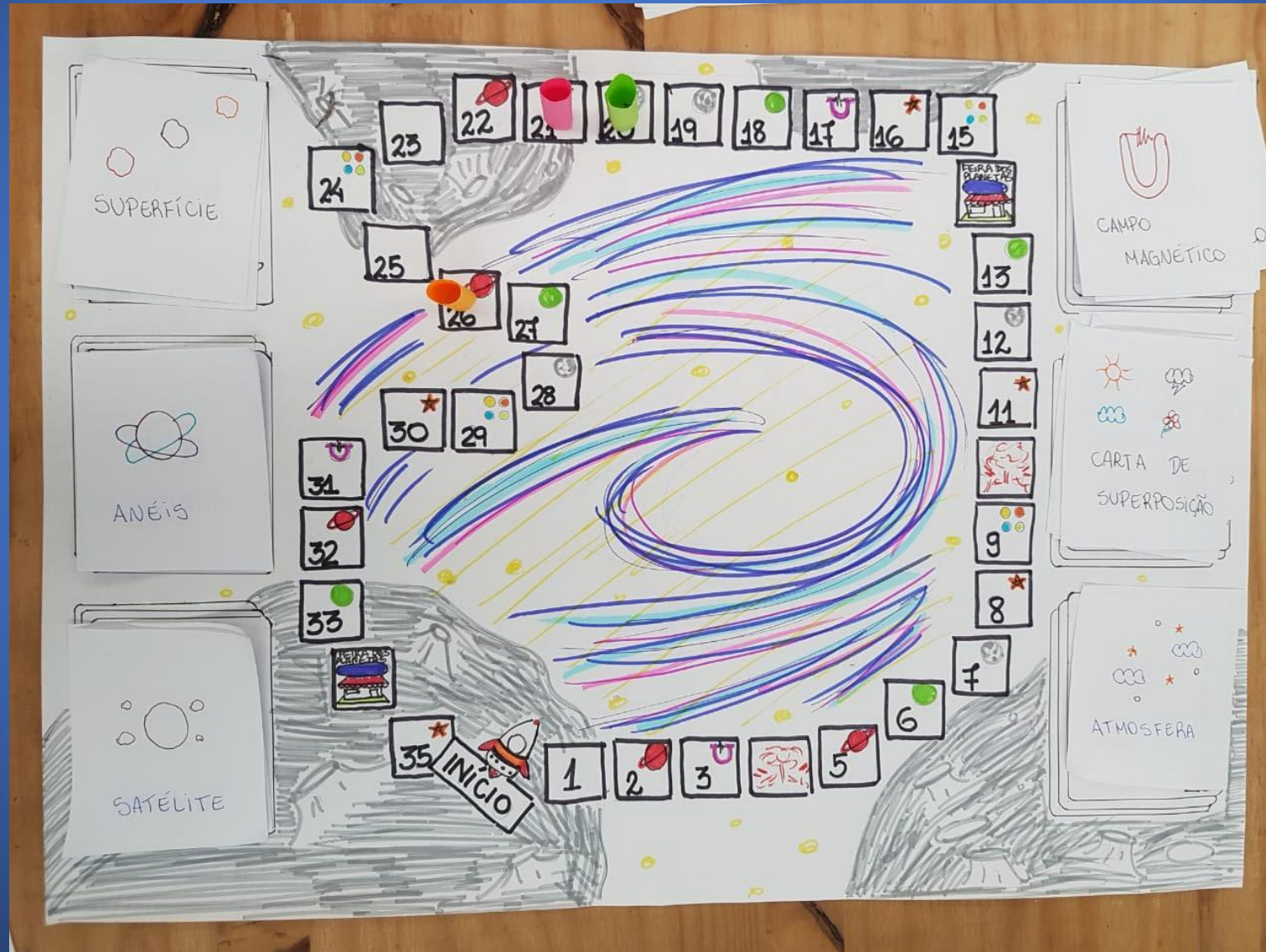
# GENERAL MARKET

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Do you often look for information on astronomy and new discoveries in this area?

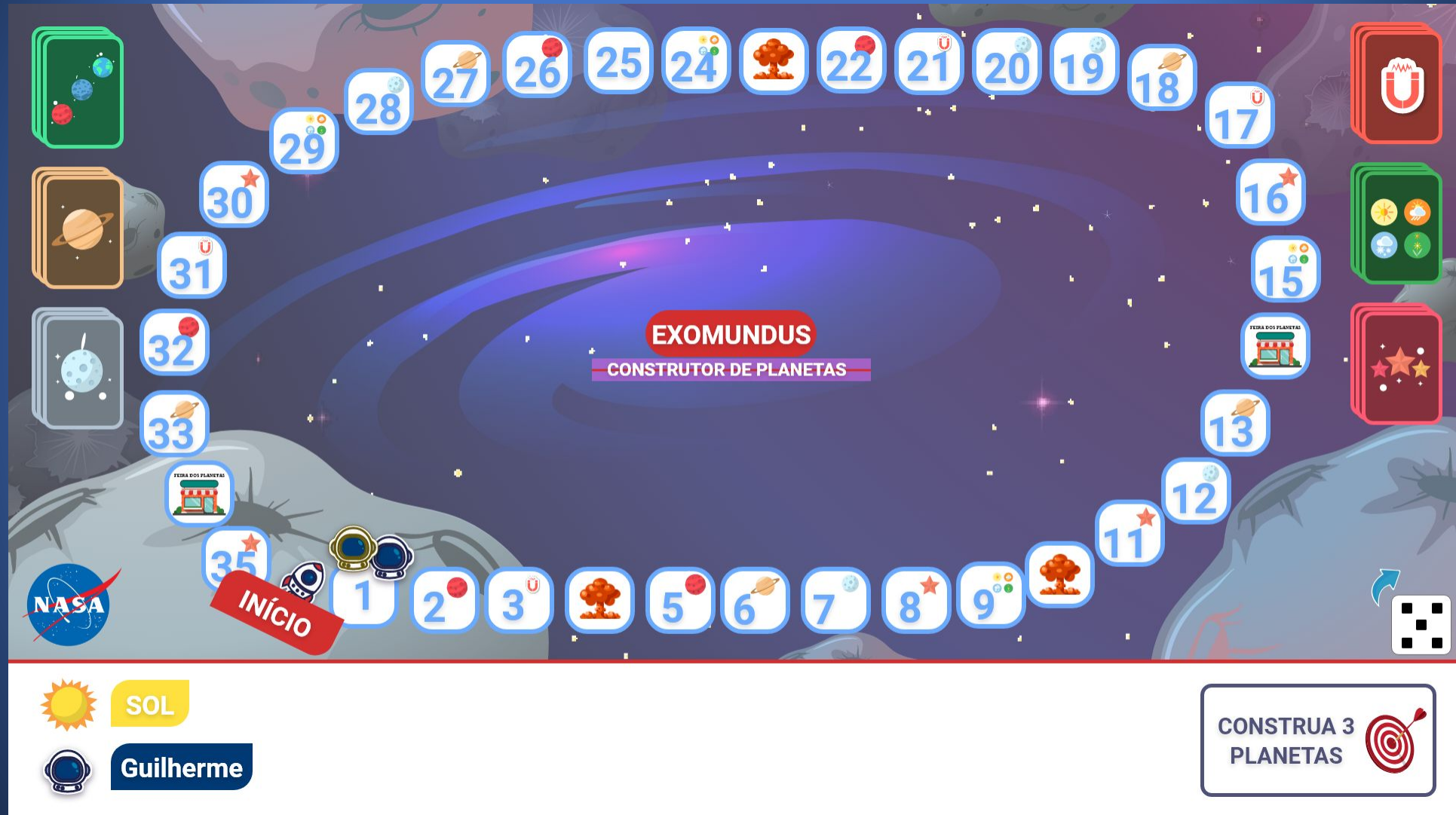


# EXOMUNDUS: PLANET BUILDER





# EXOMUNDUS: PLANET BUILDER



# THE GAME

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## DESCRIPTION:

The idea of the EXOMUNDUS game is to use an educational approach to teach basic astronomy and star-related concepts in our galaxy through a competitive challenge among players.

AGE: From 10 years old

NUMBER OF PLAYERS: 2-5 players

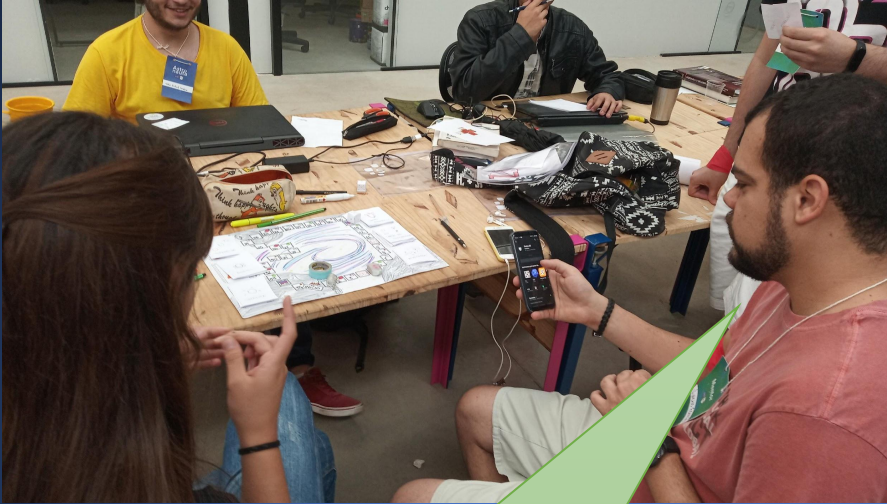
## GOALS:

Players must accomplish one of the 20 objectives that involve creating planets according to the characteristics defined for the constitution of a star system.





# WHAT THE “ASTRONAUTES” SAID



Funny! I enjoyed understanding the properties of building a planet. I did not know that there were so many characteristics to its formation.  
(Vinicius Ferreira)



An extremely interesting and engaging game. Mainly for the possibility of use with other technologies.  
(Leonam Brunhari)



# WHAT THE “ASTRONAUTES” SAID

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“This kind of game would be very interesting at the CDA-CDCC (Astronomy Dissemination Center). It would help in the dissemination of astronomy knowledge in a playful way, for students of elementary and high school. ”

Valter Luiz Líbero

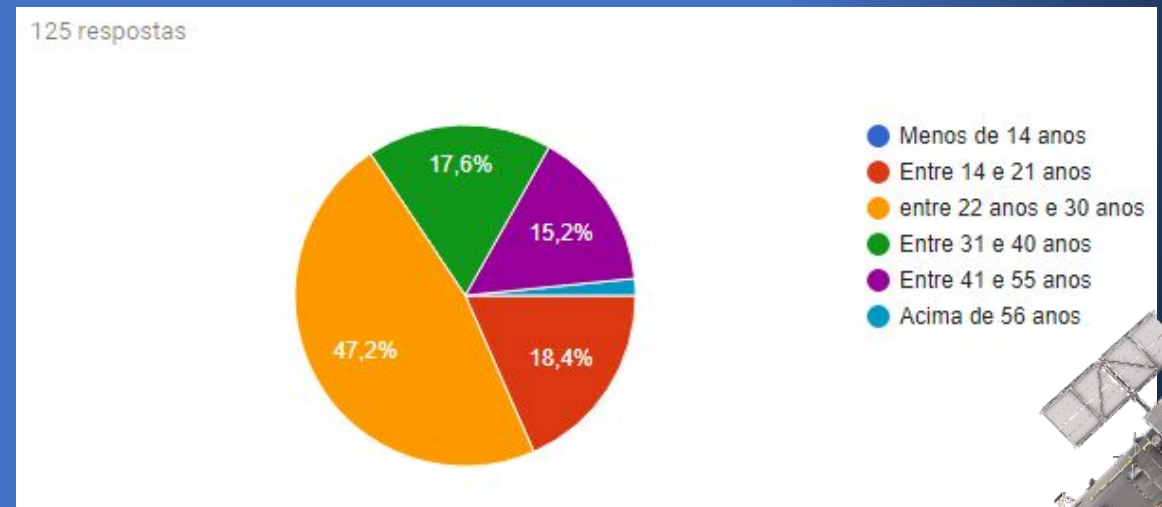
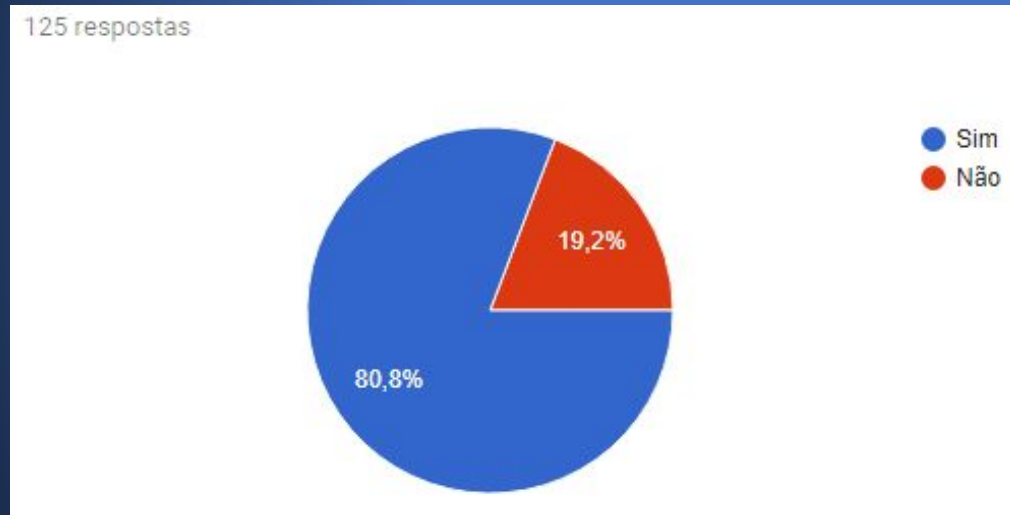
FCI / FT – Theoretical Physics Group





# THE DEFINITIVE QUESTION

Would you buy a board game (physical or virtual) that would allow you to learn the basics of astronomy with NASA official data to play with your friends, family or students (if you are a teacher)?





# ESTIMATED COST

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- Sheet A3: R\$ 0,50
- 20 A4 sheets: R\$ 1,60
- Impression: R\$ 9,70

**TOTAL: R\$ 11,80**



# NEXT STEPS

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1. Achieve being among NASA's selected projects
2. Create digital, online and multiplayer version
3. Create a low-cost, affordable physical version of the game as a public printable file (approximate value R\$ 11,80)



# TEAM

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**Ana Rachel Bernardi Ferracini**

▣ *Graduating in chemical engineering*

**Anderson Araujo de Oliveira**

▣ *Graduating in Computational Physics*

**Clara Castellon Cunha**

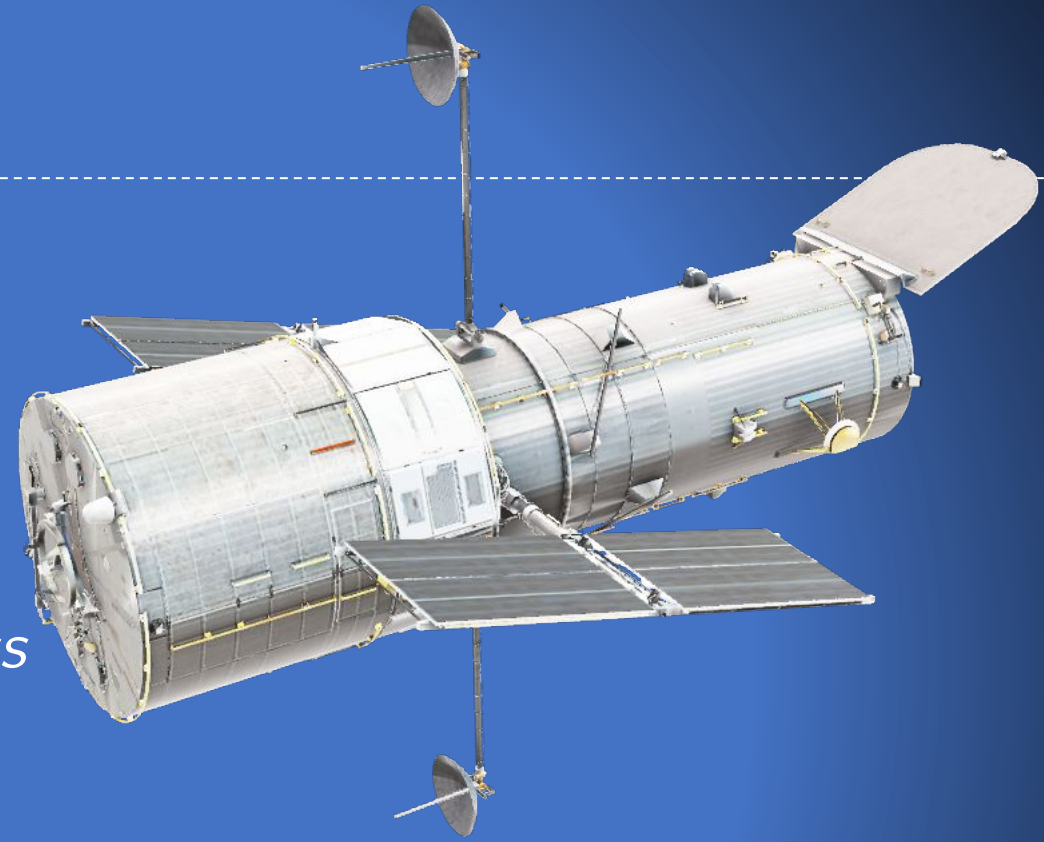
▣ *Graduating in Environmental Engineering*

**César Augusto Pessoa**

▣ *Project Management Specialist*

**Victor Richard Cardoso**

▣ *Graduating in Computational Physics*





Houston, we have a Solution!



Thank you!

