

# Minero: The VR Game That Makes Learning About Mineral Extraction Fun and Engaging.

Minero VR Takes You on a Thrilling Adventure Through the National Museum of Technology in Warsaw.



## ABOUT NMT

The National Museum of Technology in Warsaw is the largest technical museum in Poland. It currently has over 15,000 exhibits in its collection. The collection includes exhibits from many fields, such as astronomy and physics, mining and metallurgy, computer science, radio engineering, transport, and power engineering.



## THE CHALLENGE

The National Museum of Technology in Warsaw was looking to create an engaging and educational experience to promote their two-part permanent exhibition Sources of Civilisation's Energy – the History of Fossil Fuels and Ignacy Łukasiewicz – the Pioneer of the Oil Industry.

The first part of the exhibition focused on the origins and history of energy sources, introducing visitors to extraction techniques and highlighting fissile materials as the youngest and most efficient of them all. The second part of the exhibition paid tribute to Ignacy Łukasiewicz, the inventor whose work led to the modern world's dependence on oil.

To achieve their goal, the museum turned to Braindance Studio, who created Minero, a VR educational game that immerses players in the world of energy extraction and processing, and features some of the items (e.i. drills) featured in the physical exhibition. Minero is designed to be a fun and interactive way to learn about mineral extraction.

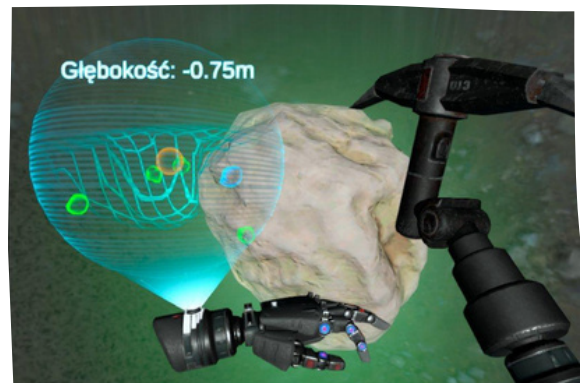
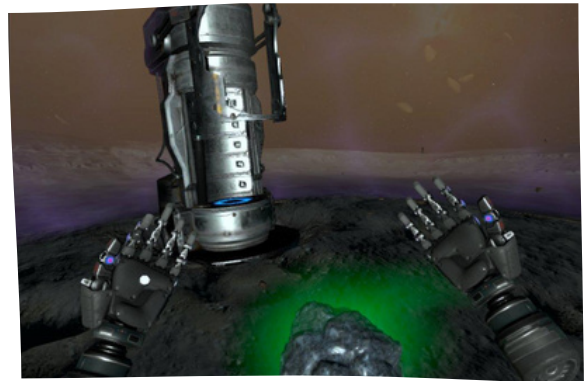


## THE SOLUTION

Minero is the result of a collaborative effort between Braindance Studio and the National Museum of Technology in Warsaw. Initially, the museum was searching for an engaging and effective way to promote its exhibition. After brainstorming with both teams, the idea for a VR educational game was born.

The game begins with a thrilling landing sequence on an asteroid, where players are introduced to their virtual assistant, Buddy, who will guide them through the mission. The goal is to place an explosive charge in the center of the asteroid within 20 minutes, which is essential to prevent a collision course with Earth. As players navigate through the game, they'll encounter various minerals that they'll need to extract and learn interesting facts about each one.

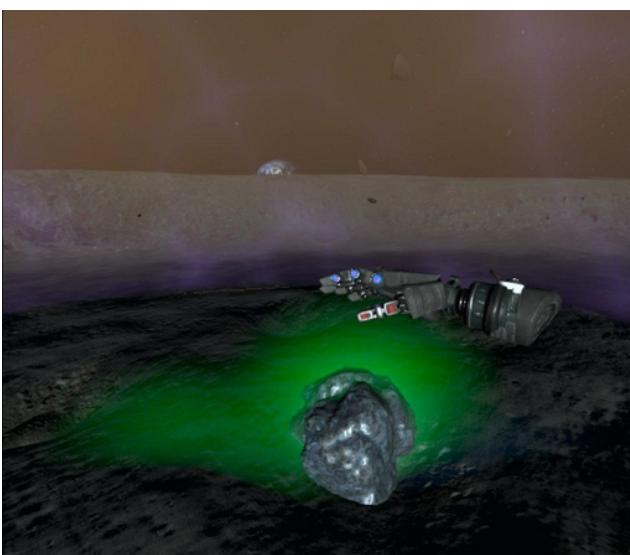
Minero was specifically designed for the exhibition and is intended to provide an immersive and interactive learning experience for visitors. The museum provides VR headsets for players to fully experience the game. With its unique combination of entertainment and education, Minero offers an innovative approach to learning about the world's energy industry.

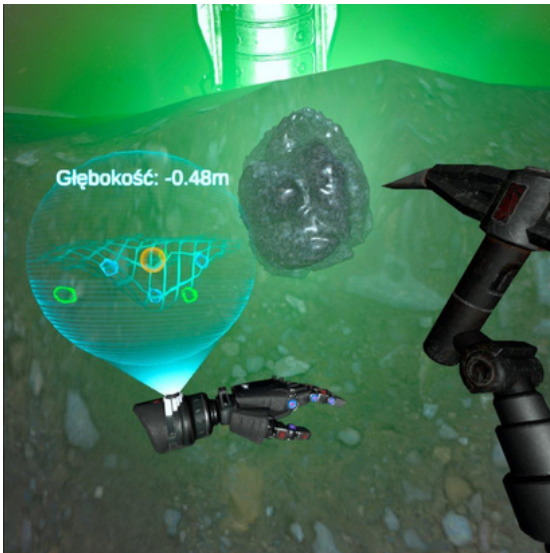


## RACE AGAINST TIME

One of the biggest challenges that we faced while developing Minero was the time limit of the game. Despite having many great ideas and an abundance of educational content to incorporate, the Braindance team was unable to squeeze it all into the game due to the time constraint. We had to prioritize and carefully curate the information that would be included in the game to ensure that it would remain engaging, entertaining, and educational.

Deciding which information to include and which to leave out was a significant challenge that required careful consideration and collaboration between the Braindance Studio and the National Museum of Technology teams. Ultimately, we were able to strike a balance and include the most valuable and interesting information while keeping them engaged throughout the game.





## **DIGGING FOR SUCCESS**

One of the technological challenges we faced while developing Minero was recreating the digging activity in the virtual world. Although it wasn't the biggest challenge we encountered, it did require significant experimentation and innovation. Our team had to carefully consider the physics, mechanics, and visual representation of the activity to create a captivating and realistic digging experience. They experimented with different control schemes and feedback systems to find the best way to simulate the activity while keeping players engaged and learning about the minerals they encounter. Ultimately, the team was successful in creating a digging system that adds to the overall educational value and excitement of the game.



## **THE CONCLUSION**

In summary, Minero, the VR educational game developed by Braindance Studio for the National Museum of Technology in Warsaw, has received a positive reception from both visitors and museum staff. The game successfully provides an engaging and immersive learning experience, combining education and entertainment in a unique way. Making all interactions as intuitive as possible is always a challenge and a goal we strive to achieve. Our team faced the challenge of creating a game that is both fun and educational, and while prioritizing information and curation, we were able to strike a balance that keeps visitors engaged throughout the game.

Despite the technological challenges of recreating the digging activity in the virtual world, our team was successful in creating a captivating and realistic experience that adds to the educational value and excitement of the game. In conclusion, Minero is a successful and innovative approach to learning about the world's mineral extraction, and it has proven to be a valuable addition to the National Museum of Technology's permanent exhibition.