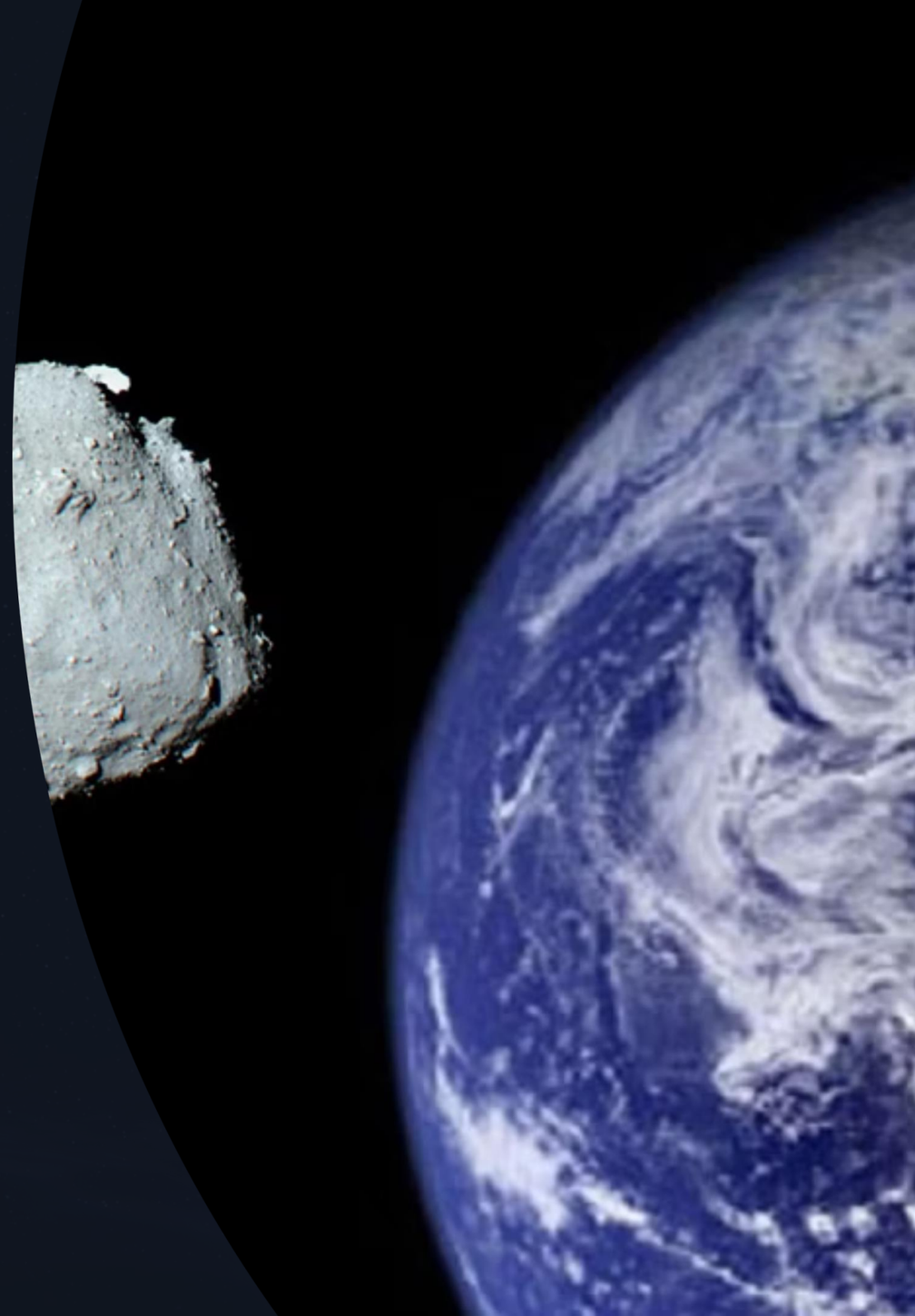
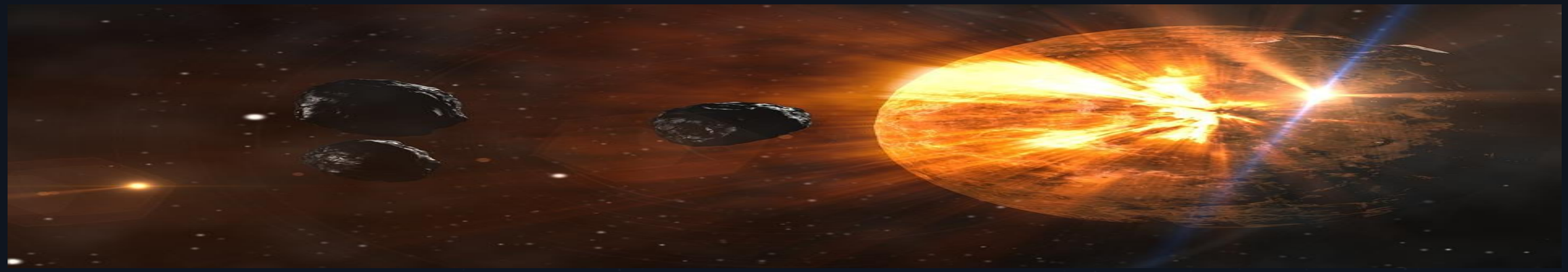
Meteor Madness

Track. Deflect. Survive.

The ultimate asteroid tracker and impact simulator combining real-time space science with gamified learning





Earth Faces Unseen Space Threats

Every day, thousands of near-Earth objects hurtle through space, many undetected until the last moment. While catastrophic impacts are rare, the consequences would be devastating.

The challenge isn't just detection—it's public awareness and understanding of deflection science. Most people don't realize how real these threats are or how we might defend against them.

Meteor Madness transforms complex space science into an engaging, educational experience that makes asteroid awareness accessible to everyone.

30K

Near-Earth asteroids

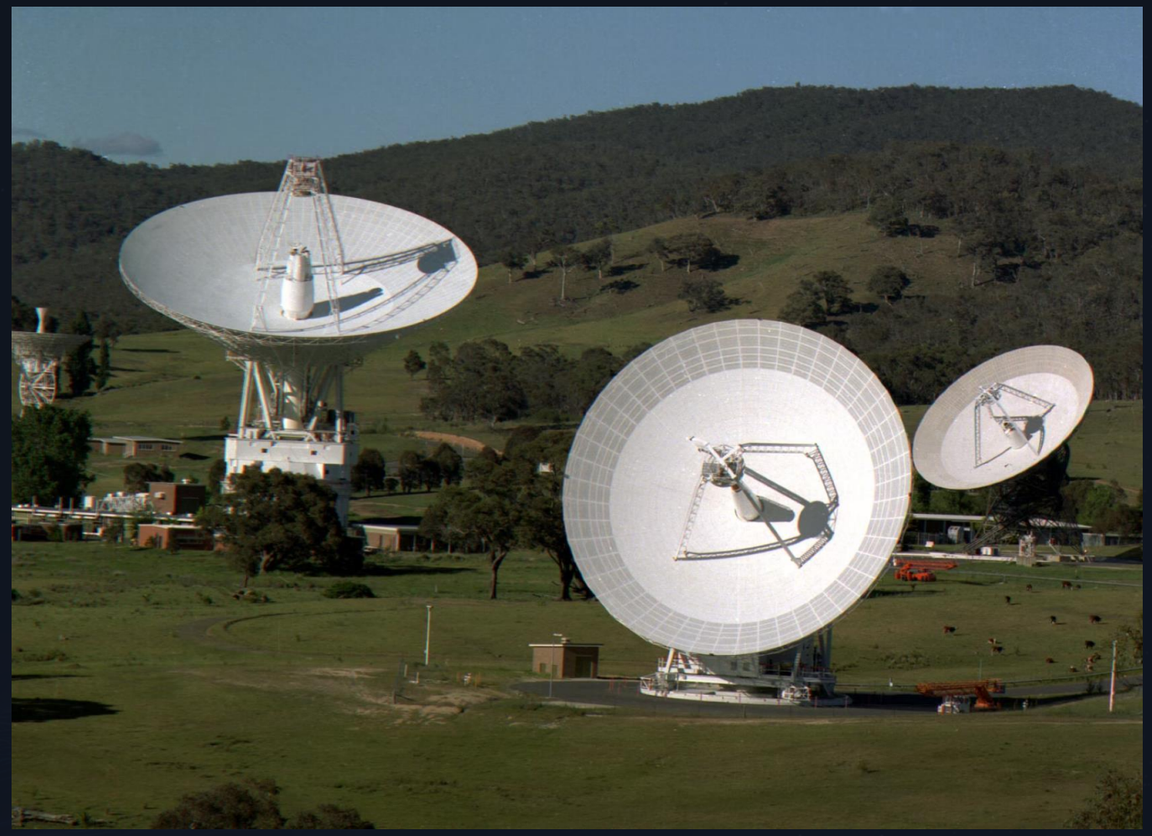
Currently tracked by NASA

160

Potential hazards

Objects requiring close monitoring

Real-Time Asteroid Tracking Module



Live Data from NASA

Our tracker connects directly to NASA's Near-Earth Object API, pulling real-time data on asteroids and meteors approaching our planet.

01

Fetch live asteroid data

API queries return position, velocity, and size

02

Visualize in 3D space

Interactive globe shows trajectories and approach vectors

03

Monitor close approaches

Get alerts for objects within critical distances

Technical Architecture

Built on Proven Technologies

Meteor Madness leverages cutting-edge web technologies and official NASA data sources to create a seamless, responsive experience.

The architecture combines real-time API integration with powerful visualization libraries to deliver both scientific accuracy and engaging gameplay.

Frontend Stack

HTML5, CSS3, and vanilla JavaScript for clean, fast performance

NASA NEO API

Official Near-Earth Objects API providing real-time asteroid data

Visualization Libraries

Leaflet.js for interactive maps, Three.js for 3D effects, Chart.js for data

Deployment

Hosted on GitHub Pages for reliable, accessible delivery

Key Features in Action

Real-Time Tracking

Live asteroid positions updated from NASA's database with approach distance and velocity metrics

Interactive Globe

WebGL-powered 3D visualization showing impact zones and deflection paths on Earth's surface

Deflection Science

Learn how kinetic impactors and gravity tractors can alter asteroid trajectories

Impact Simulation

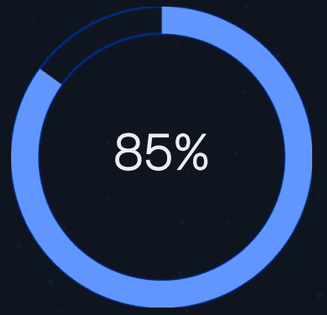
Realistic visualization of crater formation, tsunami generation, and blast effects

Gamifying Space Awareness

Making Science Accessible

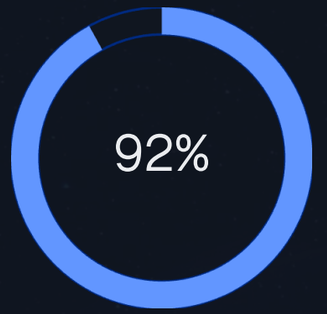
Space threats are scientifically complex but critically important. Our platform bridges the gap between academic research and public understanding.

> "Education through engagement—Meteor Madness turns asteroid defense from abstract concept into hands-on experience."



User engagement

Players spend average 12 minutes exploring scenarios



Learning retention

Users recall deflection concepts after gameplay

Thank You

Ready to Track. Deflect. Survive?

Meteor Madness demonstrates how technology can make space science accessible, engaging, and actionable. By combining real NASA data with interactive simulation, we're building awareness of planetary defense—one asteroid at a time.

Live Demo: Experience Meteor Madness at our GitHub Pages deployment

Questions? Let's discuss how gamification can advance space awareness and planetary defense education.