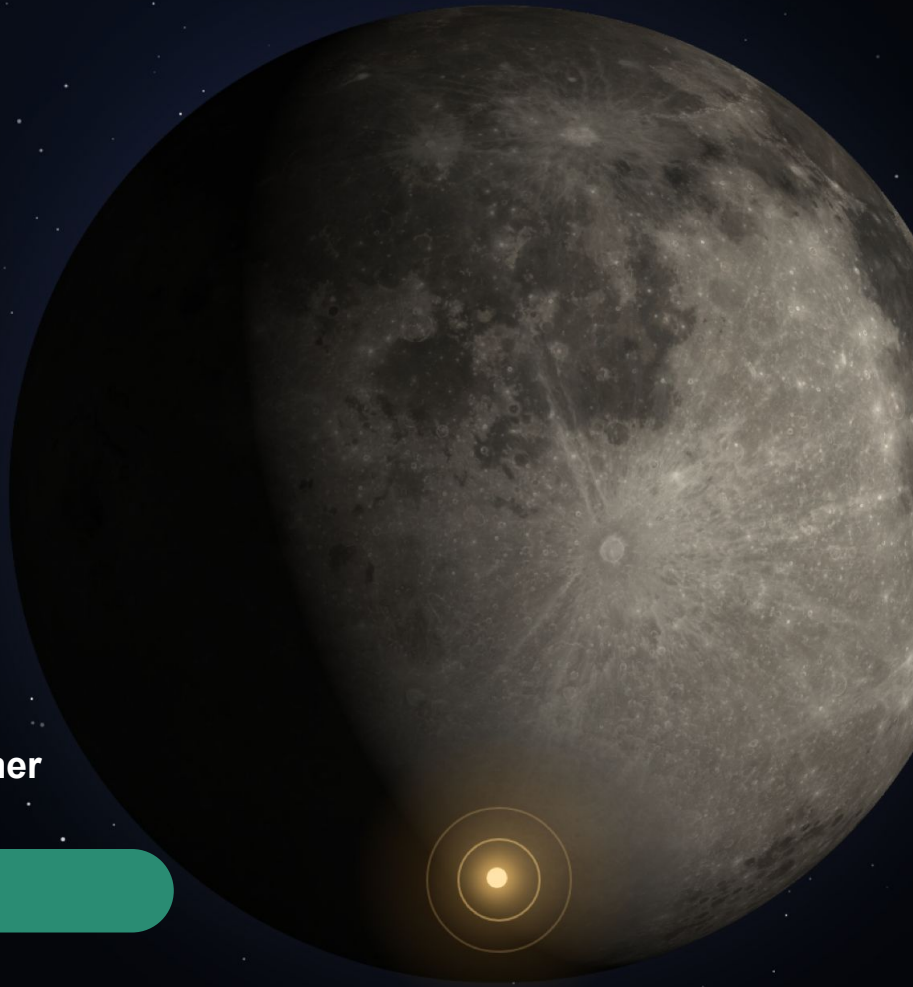
NASA SPACE APPS CHALLENGE 2026

Outpost Luna

Train for the Moon by talking to CAPCOM.



TEAM	**Outpost Luna**
MEMBERS	**Karan Singla, Bryan Pellom**
CHALLENGE	**Build a Junior Astronaut Mission Trainer**

Get it for Mac and Windows whissleai.github.io/Outpost-Luna

Moon: NASA/GSFC/Arizona State University (LRO). App icon: AI-generated image. Inspired by NASA's Artemis program; uses NASA open data; not endorsed by NASA.

THE IDEA

Don't just watch Artemis. Practice it, out loud.

Artemis is taking people back to the Moon, but most of us only get to watch. Outpost Luna turns NASA's open data into a mission you can run yourself, by talking.

1 Learn

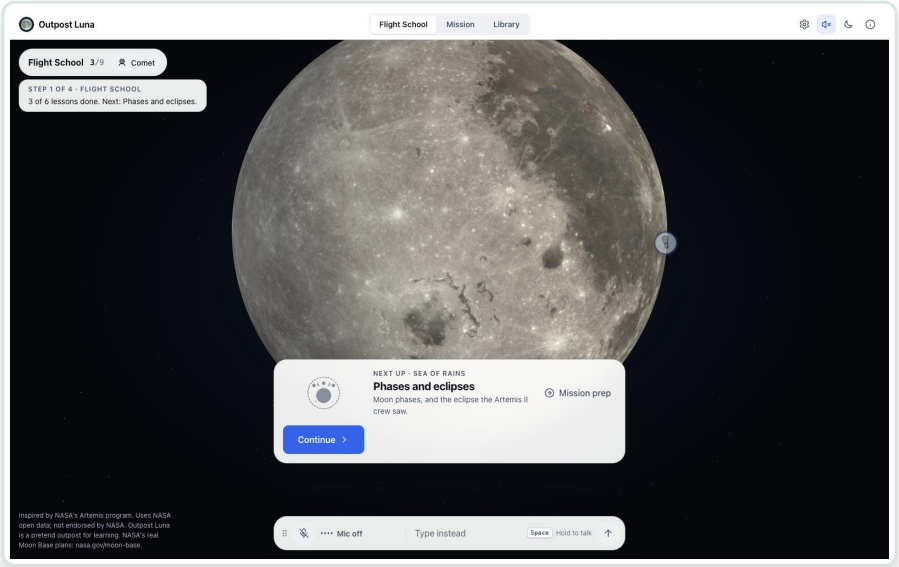
Flight School: short spoken lessons with CAPCOM and real Artemis II crew audio

2 Fly

Run a pretend south-pole outpost for 10 days, through real solar storms

3 Explore

A 3D Moon library: every landing site and lander, with NASA sources

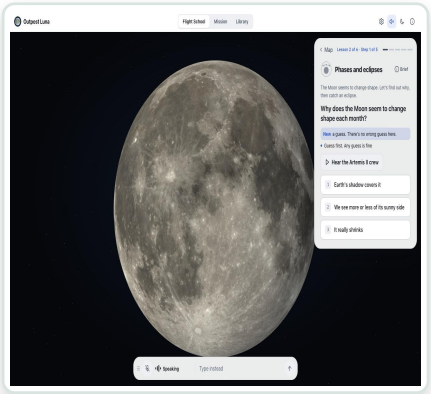


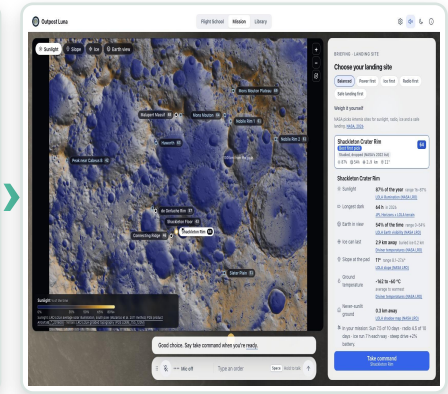
The Flight School map: one patch per lesson, then the check ride.

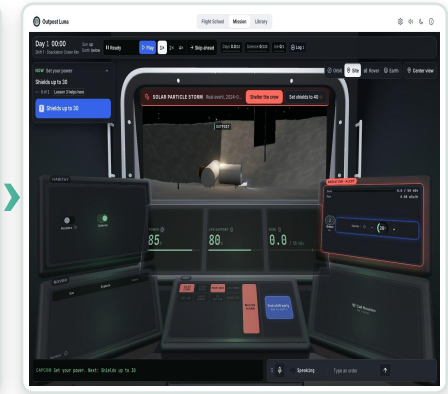
Talk, tap, keyboard, game controller or hand gestures — every step works every way.

THE EXPERIENCE

A first session: learn, pick a site, survive a storm, debrief









1 Learn by guessing

CAPCOM asks; you answer out loud; the Moon shows why

2 Pick a real site

Sunlight, Earth view and ice from NASA lunar maps

3 Survive a real storm

A May 2024 solar storm: shelter the crew

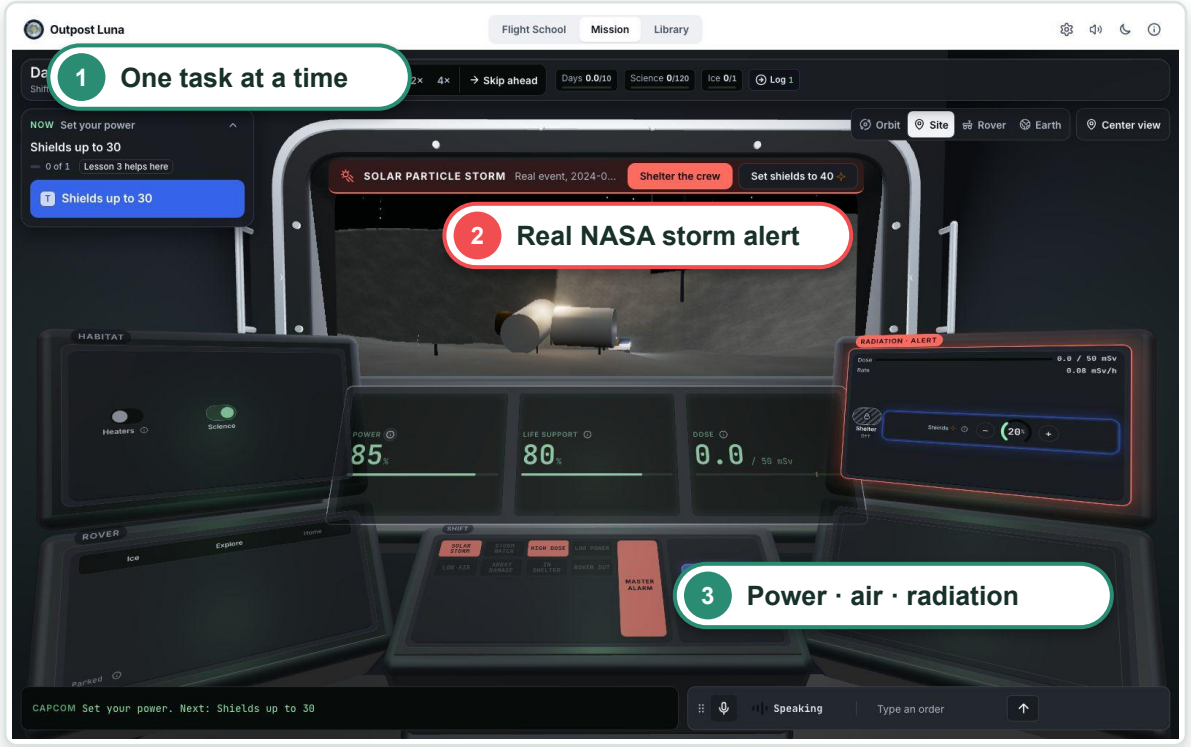
4 See what happened

Your choices, scored with the real NASA numbers

Lessons come back as mission events. What you learned about sunlight, radiation and ice becomes the calls you make.

INSIDE THE MISSION

You're in the cabin. The Moon outside is real.



Window

Orbit, Site, Rover and Earth views over real NASA lunar terrain

CAPCOM

Coaches you by voice; Houston answers when Earth is up

Real sky

Sun and Earth positions decide power and radio

“Why?” cards

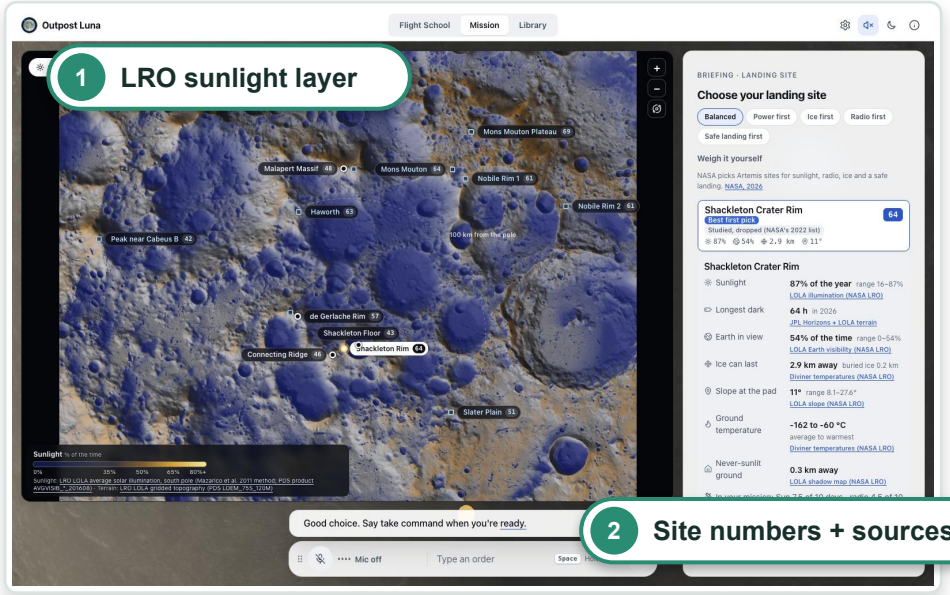
Every gauge explains its physics with a NASA source

Your call

Shelter, shields, heaters, rover ice runs, science

NASA DATA

Real NASA data behind every lesson, site and storm

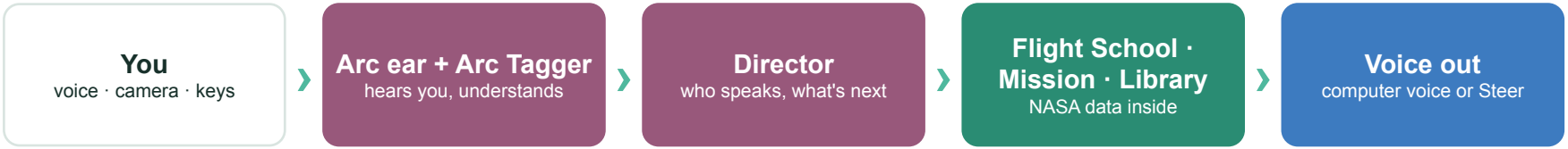


- **DONKI** real solar storms (2017–2025)
- **JPL Horizons** Sun & Earth over each site
- **LRO LOLA · Diviner** terrain, sunlight, ice, temperature
- **LRO LROC** the 3D Moon
- **NSSDCA** 36 pieces of hardware on the Moon
- **Artemis II audio · NASA video** 74 crew clips, NASA videos in lessons

✓ **Fact-checked** against NASA sources ✓ **Honest** game-only tech says “Pretend tech” ✓ **Offline** data is built in; no calls at run time

HOW IT WORKS

Voice AI, running fully on your computer



■ our models (licensed by Whissle, CC BY-NC 4.0) ■ the app ■ output

Measured on our on-device ear (Arc Transcriber Space) vs off-the-shelf transcriber, on standard speech tests:

~13% **word errors** was 29% for Nvidia baseline model

7.0% **Word errors, NASA podcast**

~95% **names linked correctly, Artemis audio**

PRIVATE BY DESIGN

✓ No internet after setup ✓ No account ✓ Camera off by default ✓ Nothing uploaded



WHAT'S NEXT

Practice the Moon before the next crew lands.

1. **A smarter Director**
   trained on real voices, switched on where it's proven safer
2. **More missions**
   more south-pole sites and longer campaigns
3. **Live space weather**
   today's NASA storm alerts in the cabin, when you're online

Scan to get it

TRY IT whissleai.github.io/Outpost-Luna
SOURCE github.com/WhissleAI/Outpost-Luna

Inspired by NASA's Artemis program. Uses NASA open data; not endorsed by NASA. Outpost Luna is a pretend outpost for learning.