

Can You Hear Me Now?

Who We Are

- Stephen Scott (McMaster University)
- Andrew Cramp (Queen's University)
- Evan Bernard (University of Waterloo)
- Dan Wise (McMaster University)



To design an interactive application to explore the challenge of communicating with astronauts on Mars from Earth

- Distance the information has to travel
- Planets constantly moving
- Sun separating planets
- No instant feedback

Game Description

You are running a rover mission on mars to collect rock samples from the surface. Record rover commands (arrow keys) on earth, then send them to mars as a packet. Watch your command packet fly through space towards mars, but be careful not to send it when the sun is in the way! When the information packet gets to mars, the rover will move accordingly. Pick up as many rocks as you can before time runs out!

Solution Overview

- Created an interactive 3D game using Unity
- Planet view shows the planets orbiting and command packets
- Rover view shows the rover on Mars, attempting to take rock samples
- Record keystrokes into command packet and send to Mars
- Research progress bar constantly declining, collect rocks samples to restore it

Technical Challenges

- Solar System model physics
- Command packet transfer
- Rover game functionality
- Camera movement

Gameplay Demo