



Mars Climate Orbiter: A Lesson in Dealing with the Human Factor

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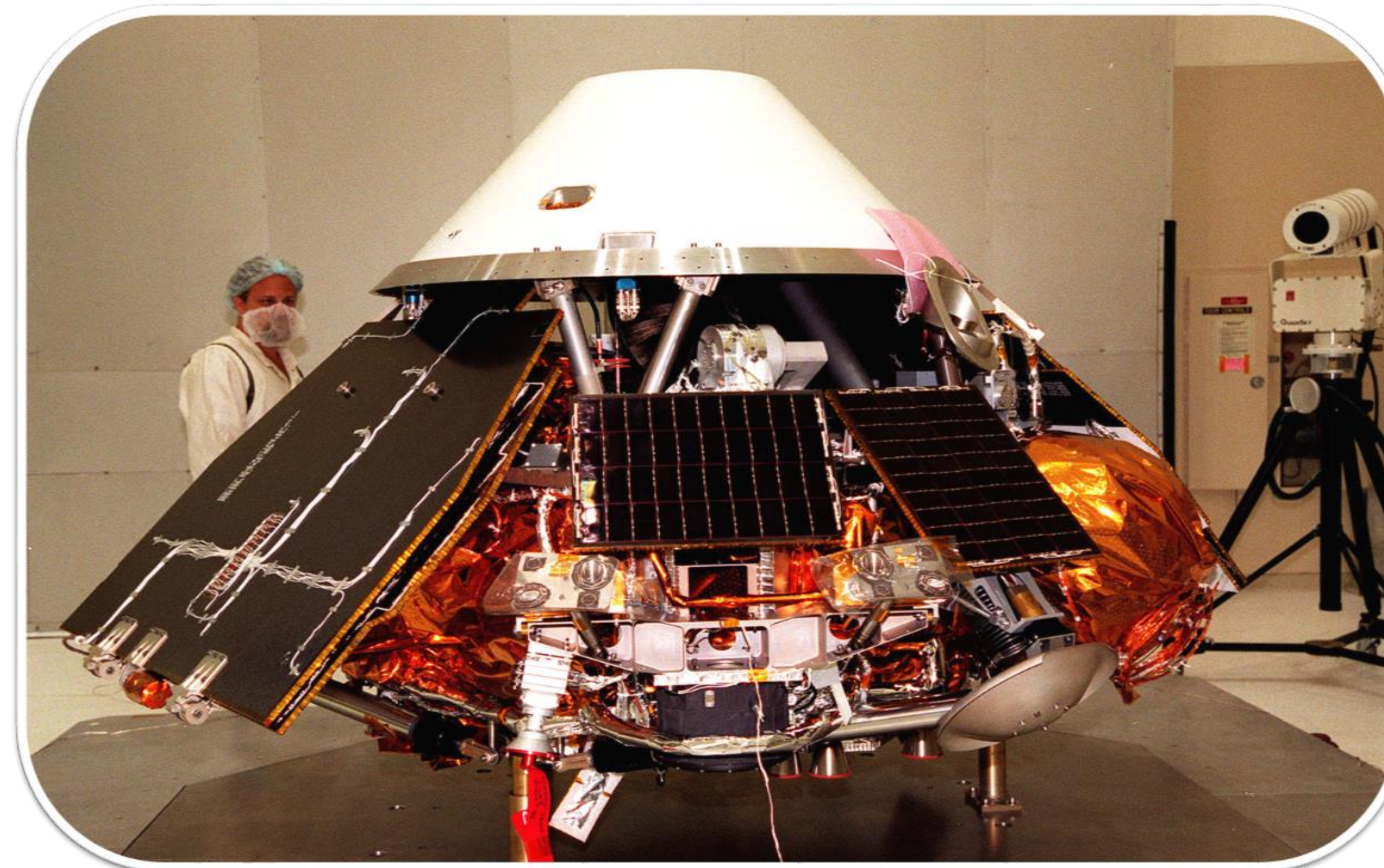
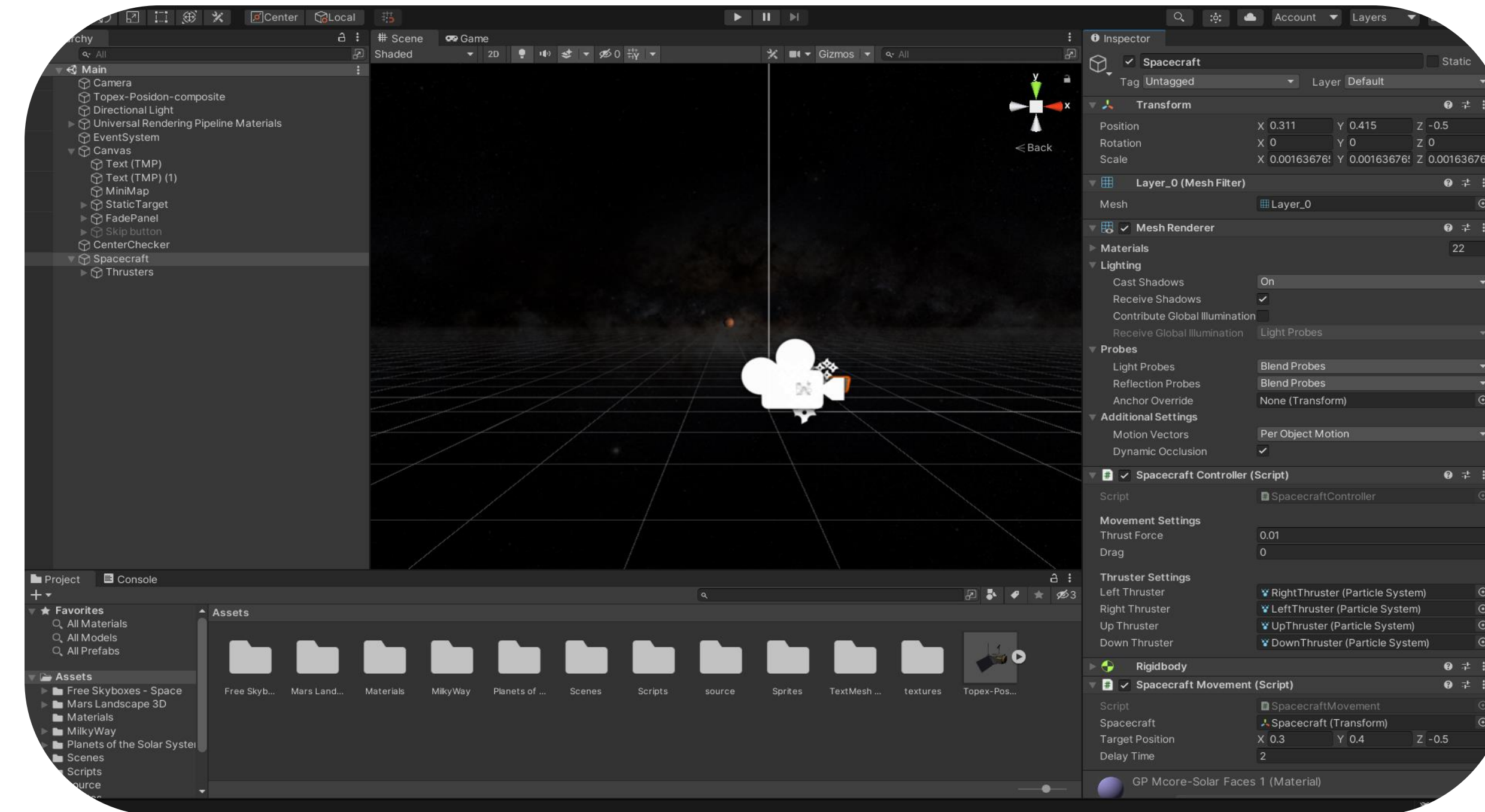


Driving question:

How can I show people how the mistake that caused the loss of the MCO happened in an accessible manner?

Background

The Mars Climate Orbiter's demise stemmed from a unit mismatch. Data transmitted from the spacecraft were in different units than what ground control thought. This fundamental misunderstanding in the units of the spacecraft's telemetry led to incorrect trajectory adjustments, causing the orbiter to crash into Mars.



Conclusion

Through my simulation, the general public can get an easy understanding of what happened and the reasons behind it. This helps raise awareness about these issues.

Methods/Materials

I developed a Unity simulator that puts the player in the shoes of Mission Control. This allows them to experience the situation from their perspective. This allows them to get a deep understanding of what happened, how it happened and why it happened.

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