

## 14.5: Discussion- Communication Breakdown on Mars

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### Post 1: Initial Post

#### Instructions

This posting should be a minimum of one short paragraph and a maximum of two paragraphs. Word totals for this post should be in the 100–200-word range. Whether you agree or disagree, explain why with supporting evidence and concepts from the readings or a related experience. Include a reference, link, or citation when appropriate.

#### Preparation

In 1999, NASA launched its Mars Climate Orbiter, a \$125 million satellite that was supposed to gather data about weather on the red planet. But the spacecraft failed to make it into orbit, instead burning up in the Martian atmosphere. After investigating the cause of the failure, NASA determined that there was a discrepancy in the measurement units used in the software controlling the orbiter's thrusters—one piece of software used metric units, while another piece used English units (pounds). The difference in units appeared to be the result of a miscommunication between NASA's engineers and those at Lockheed Martin, who had been hired as a contractor to build the spacecraft.

Watch the following video for more on the Mars Climate Orbiter failure:

A link to an interactive elements can be found at the bottom of this page.

You can [view the transcript for "NASA Measuring Failure" here \(opens in new window\)](#).

#### For Discussion

Please respond to ALL of the following questions in your initial post:

1. What barriers to effective communication do you think might have contributed to the Mars Climate Orbiter failure?
2. Based on what you learned from the video and any additional research you conducted, identify the factors that you think played the biggest role in the communication breakdown.
3. How do you think a miscommunication like the one responsible for the Mars Climate Orbiter failure could have been avoided? What practices could NASA implement to make sure this kind of miscommunication doesn't happen again?

### Posts 2 and 3: Respond to Classmates' Posts

#### Instructions

After you have created your initial post, look over the discussion posts of your classmates and give at least two thoughtful responses to two different classmates (one per classmate).

A response posting should be a minimum of one short paragraph. Word totals for these posts should be in the 75–100-word range. Whether you agree or disagree, explain why with supporting evidence and concepts from the readings or a related experience. Include a reference, link, or citation when appropriate. The goal of your response posts is to extend discussions already taking place or pose new possibilities or opinions not previously voiced. Your goal should be to motivate the group discussion and present a creative approach to the topic.

#### Contributors and Attributions

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- General Discussion Instructions. **Authored by:** Linda Williams and Lumen Learning. **Located at:** <https://courses.lumenlearning.com/wmopen-introbusiness/chapter/discussion-external-factors-internal-pressure/>. **License:** [CC BY: Attribution](#)

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- Video: NASA Measuring Failure. **Authored by:** Eugene Fournier. **Located at:** [https://www.youtube.com/watch?v=q2L5\\_swAT5A](https://www.youtube.com/watch?v=q2L5_swAT5A). **License:** *All Rights Reserved*

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