



Communication System

Brainstorm and write your answers in your Mission Journal

1. What different ways do we have of communicating with each other on Earth? Do some methods work better short-distance than long-distance? What are the strong points of each of these methods? What limitations does each have?
2. Why do you think communication would be important in each of the following situations:
 - a. Between Mars colony inhabitants within their constructed habitats?
 - b. Between inhabitants in the Mars colony and those conducting missions elsewhere on the surface of Mars?
 - c. Between inhabitants in the Mars colony and Earth*

(*Mars Fact: It takes 20 minutes for a radio signal to travel between Earth and Mars, as they are 200,000,000 miles apart.)

3. Research Mars facts. Do you think any of our earthly communication methods (#1 above) would be impractical on Mars? Why or why not? Which earthly communication methods do you think would be particularly useful? What features of them might you have to modify?

Identify four "Mars Facts" that impact the design of a Communication System and write them in your Mission Journal.

4. Design a Communication System to be used by the Mars colony inhabitants that will have components to satisfy the different situations they could encounter (#2). Sketch a blueprint of your design in your Mission Journal and include labels explaining how it will work.

