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### Understanding the Mission to Mars

*The Martian* was a movie that made traveling to Mars seem much more possible than it has seemed before. The movie reveals many of the hardships and unexpected problems that could develop. In addition, the dangers and expenses of such a trip make many people doubt that humans should go to Mars. Despite the dangers, more people are starting to think that taking on this challenge and going to Mars are worthwhile and beneficial to mankind.

The first reason a trip to Mars might be a good idea is that the Earth is experiencing many threats to its well being, and humans may need a new home. The human population is growing so fast that Earth is starting to be stressed. In many places, there is not enough water for people to drink. Even places that never had to worry about a water shortage are starting to control the amount of water they use. People are starting to fight each other for control of water. There are also many places in the world where crops don't grow well. This has caused food shortages, and people are suffering. Climate change adds to the stress on Earth. Warmer weather and rising sea levels have made storms very violent. These problems give the sense that the planet will not provide for billions of people forever, and they may need to go somewhere else.

A need for other resources also gives humans a reason to go to Mars. Many electronics, including smart phones, are made with rare minerals that are hard to find on Earth. If man cannot find these minerals, there will be unrest and maybe even violence. Mars might have some of these, but it also will have new resources that man doesn't even know about. Just like the rain forest has produced secret medical cures, Mars must have medical benefits humans cannot imagine. Also, man has been trying to find alternate fuel sources for many decades. The Earth will run out of natural gas, coal, and oil, and humans will have to find other sources of energy. Dambisa Moyo explains that "arable land, potable water, energy and minerals are finite, scarce and rapidly depleting" on Earth. Finding new resources will allow humans to continue developing all kinds of products for food, health, and technology.

Another reason humans want to travel to Mars is a sense of exploration and discovery. Humans have traveled to far away lands for centuries in search of other life. They did this even when they traveled by foot because they wanted to find resources, food, or other cultures. Today, this interest in travel is why the world has become so small. Now, people all over the world share languages, companies, investments, and relationships. It's natural for humans to want to continue exploring and expanding their lives. There's nowhere else on Earth to explore, so the closest planet is the new frontier. Furthermore, humans have always wondered if they were the only intelligent species. The search for alien life is a big motivator for many people interested in Mars. There's even a theory that "a Mars rock with life in it" could have landed on Earth and "kicked off terrestrial life" (Orwig). This theory

can only be tested if life is found on Mars (Orwig). Curiosity about what humans will find on Mars keeps them interested in the new planet.

One issue that needs to be settled is who will make the trip to Mars. One option would be a multi-national team because there has long been a space race on Earth. This competition has created hostility between nations. Working together as Earthlings instead of as individual countries will unite them by providing a common goal. These shared motivators will unite all humans on Earth. A joint effort will also keep Mars from being colonized by one Earth country. Private companies like Space-X or Mars One may be able to send regular people to Mars even sooner than national space agencies (MacDonald et al.). Mars One volunteers would make a one way trip to the planet because they don't have the technology to return the humans to Earth (MacDonald et al.) Mars is a dream for many people, and the travelers could be anyone.

The plan to go to Mars is still decades away because there are difficult problems to figure out. First, the trip to Mars will be much longer than any space trip ever taken by humans. Mars is "about 200 million miles away from Earth" and would currently take over 7 months to get there (MacDonald et al.). A spaceship that can go farther faster still needs to be developed. Also, Mars is not a place where humans can just walk around and live. Astronauts need to find a way to create breathable air that won't run out. NASA has created a machine that will turn Mars air into oxygen so humans can breathe (Wall). They will need to be able to grow food too if they plan to survive for years. At least water has been discovered on Mars, so that's one problem that has been solved. Because humans have never spent

more than a year in space, there are probably other problems that will have to be worked out.

In conclusion, humans definitely have a will to explore Mars, and a mission there will happen this century. There are many reasons to go to the planet, but there are also many problems to overcome. However, the human spirit of exploration will keep the plans moving forward so that the fictional story of *The Martian* will be a reality for some real men and women.

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