***Problem:***

How do the controls work, and what do does each one do?

***Solution:***

Steering will be achieved through thrust vectoring. Thrust vectoring is something even helicopters do nowadays to retain stability and maneuverability. Each thruster will be able to move about its own axis as it will be placed within two servos which allow movement in two planes. A fuel distribution system that makes use of valves will be used to determine the thrust each thruster exerts. This system is also shared by planes on Earth. Movement will be controlled by a joystick. For extra stability and reliability the thruster-arms are attached to the belt previously mentioned.

So if you’re an astronaut: Pushing the joystick forward takes you forward, pushing it left takes you left, right takes you right and pulling it backwards takes you backwards. Simple.

Since there is hardly any atmosphere on Mars, the stars can be seen and used as reference points for navigation. Moreover, Mars has weak magnetic field so other options such as a compass are not available. During the day, instead of using the stars you can navigate using the position of the sun. Using a solar filter you can also distinguish the stars even during the day.

Another option would be to use a series of beacons (that work in all weather conditions on Mars) to map out the area the network covers. Due to the minimal atmosphere of Mars, the beacon’s coverage will be much greater to what it would be on Earth.