**What do we need to know for the flight**

* How do astronauts go to the bathroom? Do we need toilet paper
* We need to filter Co2
* How much air do we need 11,000 liters per person per day
* How to make "air"
* How much water we need
* How much water does a person consume?
* Can we take a large greenhouse? As a source for oxygen and food
* How much water do plants use?
* How long will it take?
* 9.3 months max
* 39 days at 36k mph
* Plan to go 2035 as of 9/13/15
* With iron propulsion With this design, a mission to Mars would result in a 70-day transit from Earth to the red planet, a 90-day stay at Mars, and then another 70-day return transit to Earth.
* Orion spacecraft [Max speed](https://www.google.com/search?espv=2&biw=1920&bih=947&q=orion+spacecraft+max+speed&stick=H4sIAAAAAAAAAGOovnz8BQMDgz4HnxCnfq6-gVFSerqplkJ2spV-cUFicmpaTmZ6RgmEnVyUmFZiVVyQmppyP9x05cllXk6svodnhhRb3ZN_NFkaACsxYxNMAAAA&sa=X&sqi=2&ved=0CKsBEOgTKAAwG2oVChMI-eHekv30xwIViTeICh25hQlj): 20,000 mph
* [Manufacturers](https://www.google.com/search?espv=2&biw=1920&bih=947&q=orion+spacecraft+manufacturers&stick=H4sIAAAAAAAAAGOovnz8BQMDgxkHnxCnfq6-gVFSerqplnp2spV-cUFicmpaTmZ6RgmEnVyUmFZilZuYV5qWmFxSWpRaNGXnTu_lGrcaVj8QVFs4Mfjp8cM-2gBGa26cUwAAAA&sa=X&sqi=2&ved=0CK4BEOgTKAAwHGoVChMI-eHekv30xwIViTeICh25hQlj): [Astrium](https://www.google.com/search?espv=2&biw=1920&bih=947&q=eads+astrium&stick=H4sIAAAAAAAAAGOovnz8BQMDgxMHnxCnfq6-gVFSerqpEheYaW6Ya1aspZ6dbKVfXJCYnJqWk5meUQJhJxclppVY5SbmlaYlJpeUFqUWLTcq_HnDKMn8WvgWJtPz5XzbPVZpAwAzsLxvXwAAAA&sa=X&sqi=2&ved=0CK8BEJsTKAEwHGoVChMI-eHekv30xwIViTeICh25hQlj), [Lockheed Martin](https://www.google.com/search?espv=2&biw=1920&bih=947&q=lockheed+martin&stick=H4sIAAAAAAAAAGOovnz8BQMDgwMHnxCnfq6-gVFSerqpEgeImZFdmKelnp1spV9ckJicmpaTmZ5RAmEnFyWmlVjlJuaVpiUml5QWpRZ5cnFH7pxpsaxu9le7e6zqsw65z7AHAOcO_E9dAAAA&sa=X&sqi=2&ved=0CLABEJsTKAIwHGoVChMI-eHekv30xwIViTeICh25hQlj)
* Closest approach at 34 million miles approx. 70 days in Orion spacecraft
* Light speed 186282 miles per second
* Orion Spacecraft Main components:
* Will the Orion Craft actually land?
* Need to know the stages of the Orion
* First Stage: 120 seconds, 75 Miles Above
* Second Stage: ???
* Third Stage: 3600 Miles Above
* Rocket separation stages
* Launch Abort System
  + Launch Abort System
  + Crew Module

**What do we need to know to colonize**

**What do we need to take with**

* Water???
* Oxygen(obviously not pure)
* Food (in what form) Freeze dried
* Solar Panels Mounted
* What can we do with poop? Fuel, fertilizer?

**Who do we need to take with us**

* More than 2 ships
* Toilets and toilet paper
* Feminine napkins
* Medicine (many types look at size of CVS pharmacy)

**Who do we need to take**

* Doctors
* Engineers(Mechanic, Mining, Aerospace, Civil,)
* Scientists(Geologist,environmental, mining)

**What do we need to take to use to colonize**

* Batteries
* Communication Equipment

**Research**

* Homework
  + Find out or DIE!
  + Or i'll %$^&\*(\*&$&@\*$&$$&$&\*& !!!!
  + Finding the speed and altitude of the stages
  + First stage: speed???
  + Second stage: time into flight??? Altitude??? Speed???
  + Third stage: time into flight??? Speed??