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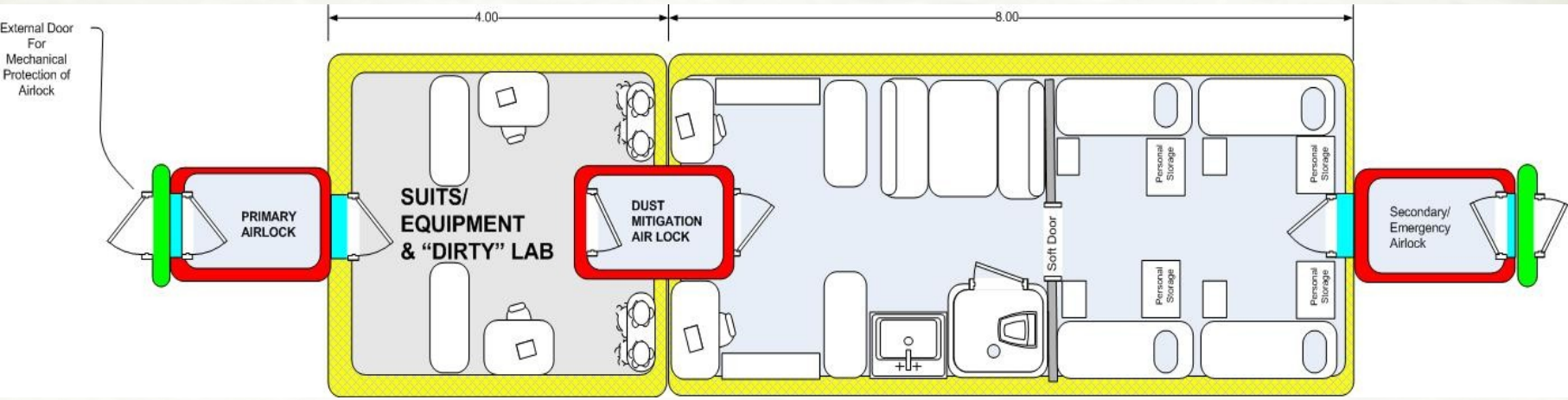
www.OpenLuna.org

What is the end goal?

A Manned outpost on the moon.
Five to seven years.
$300 to $500 million.



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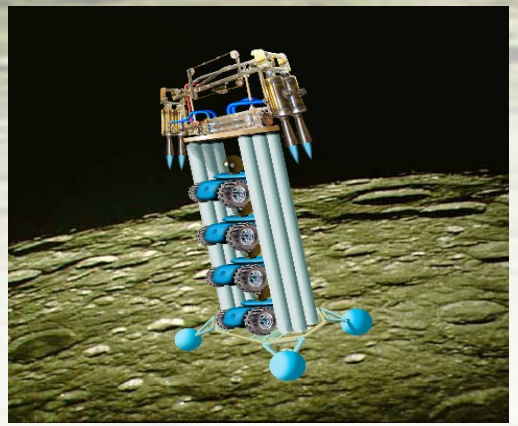
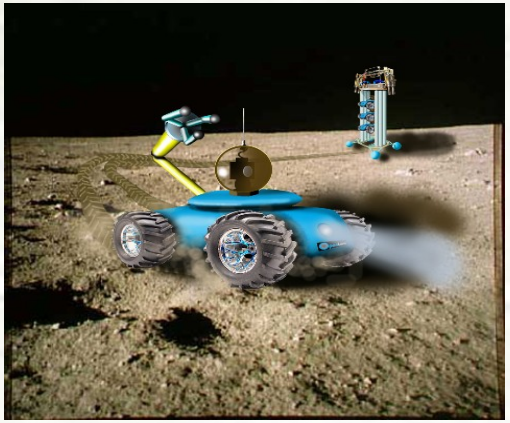
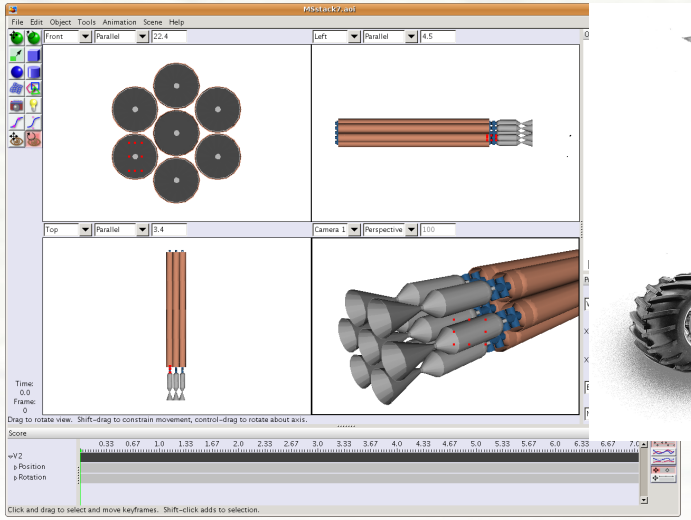


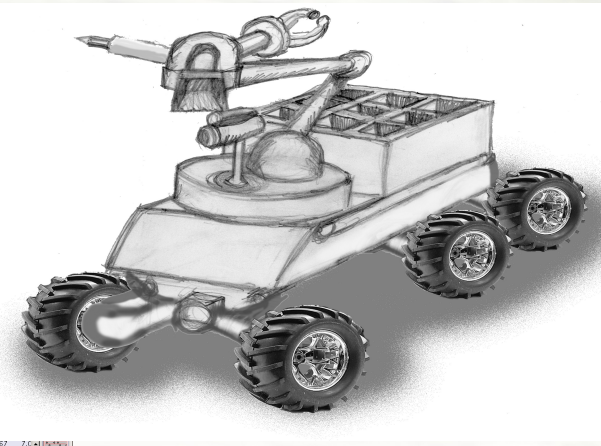
Four mission classes:

- Scout class
- Sample return class
- Manned "Pathfinder" class
- Manned "Explorer" class

Develop our own launch vehicle







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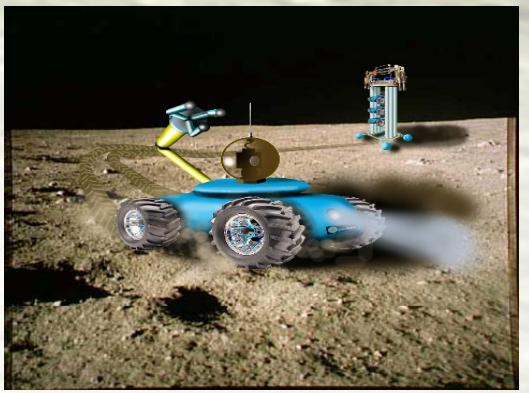
Scout Class Mission

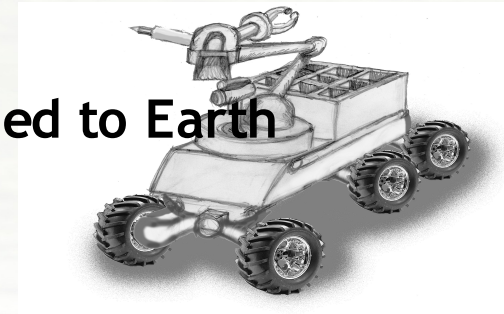
One way mission to lunar surface
Large payload (350 lbs) on surface
Early missions have engineering margins
1400 lbs in GTO (if LV is capable)
3300 lbs in LEO (with Drop Tanks)
Short local flights with leftover Propellant.



Sample Return Class Mission

(needs a better name!)

Scout class payload returned to Earth
Similar lander configuration, more propellant
Large payload (350 lbs) on surface and returned to Earth
Requires reentry vehicle development
3500 lbs in GTO
8300 lbs in LEO



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Explorer Class Mission

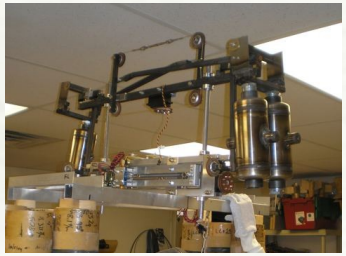
Crewed flights utilizing technologies developed from Multiple lander missions.

Scales roughly with size

11:1 Mass from GTO

28:1 for LEO

Minimal Manned Vehicle ~500 lbs



Mass derivations

Baseline Surveyor III mission

2200 lbs GTO. 600 landed, 60lbs payload

New Technologies, Especially Electronics

Vidicon Camera 21lb -> CCD 1 oz

Landing Radars (600W) -> 200hz Lidar (5.4 W)

Analog computers -> Microcontroller

Star sensors, Sun sensors, IMU, Radios, Command decoders, Actuator Drivers, Batteries, etc.

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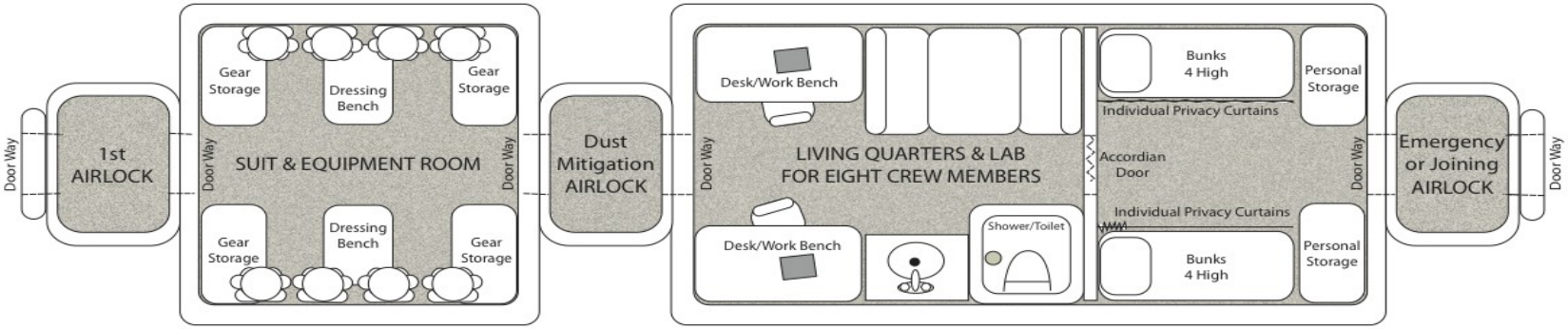
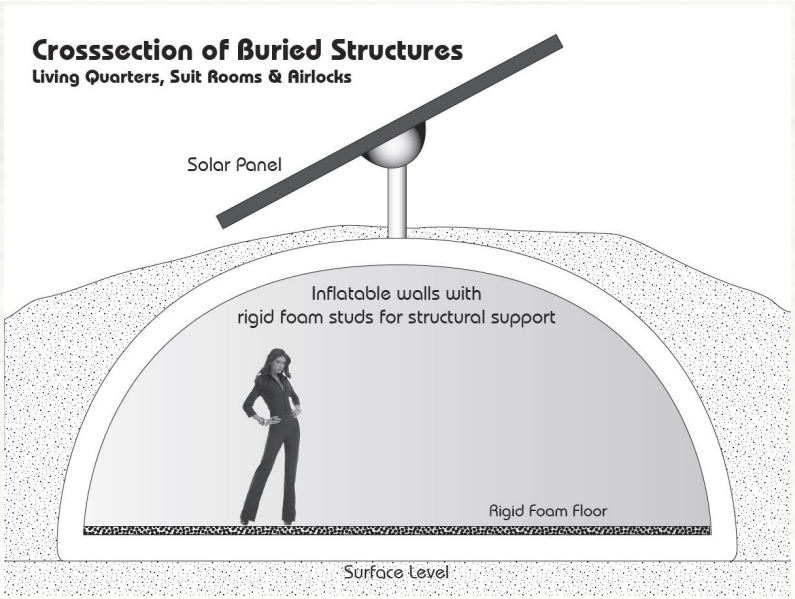


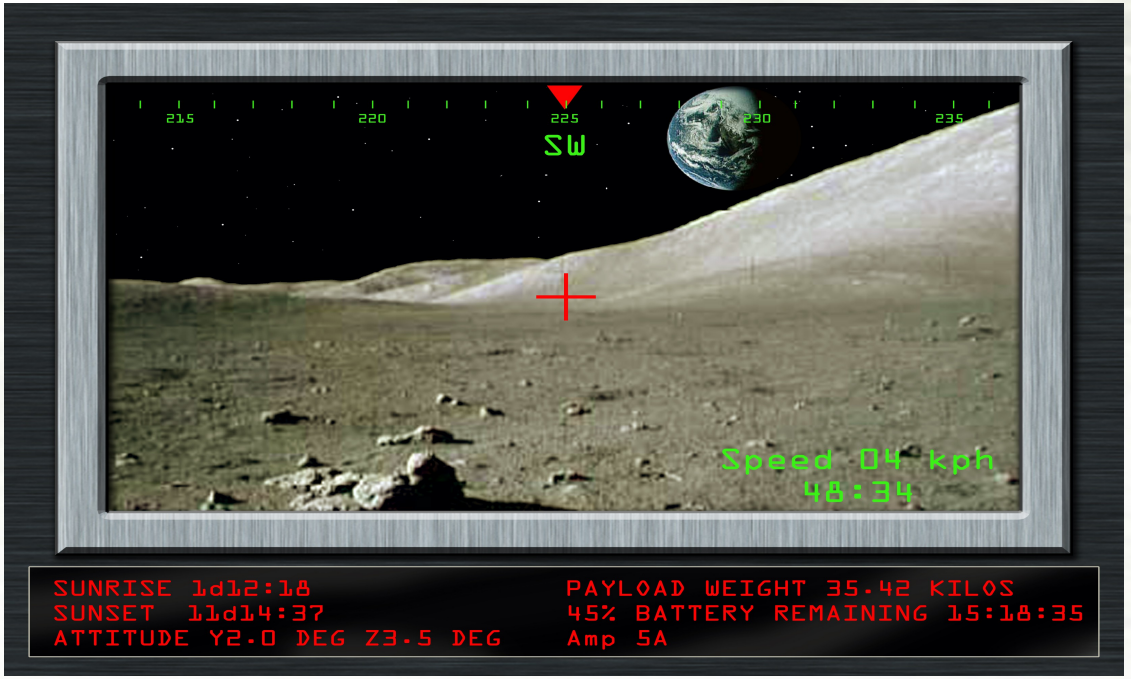


Uses of Outpost:

- Scientific interest
- Surface exploration
- Tourism
- Mining exploration base

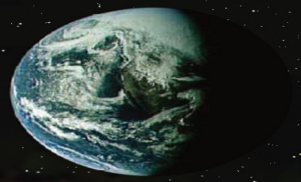
E/PO opportunities:

- Open Mission Training
- Opportunities for people to participate
- Educational television
- Many classroom and teacher's aids to be produced.
- All data will be publicly available.



PR opportunities:

- Contests
- Rovers
- Samples for students
- Fund-raising events
- Entertaining & Educational television
- Movies/books/shorts



Where do we go from here?

- Business development
- Fund-raising
- Science planning
- PR building
- (Oh yes, Engineering…)

How can you help?

Business & operations needs:

- Charitable business planning
- Funding
- Accounting
- Legal aid (Starting with the ITARds...)
- Marketing

PR needs:

- Web Development
- 3D modeling – Video production
- Artwork, 3D rendering, other illustration
- This is still being defined

How can you help?

Science needs:

- Landing site selection; where do we want to go?
- Why do we want to go there?
- What instrumentation needs to be on each of the rovers?
- Payload space will be made available on all missions; ideas?

Engineering needs:

- Assistance in various design stages;
- With immediate need in suits and Earth Return development (Overall Lander mass is final goal)

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ADVENTURE
Always bite off more than you can chew
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