



THE LUNATICS: OF MAN AND MOON



WHAT'S WRONG WITH MOON DUST?

- ★ Micrometeorite impacts
- ★ Sunlight ionizes dust particles
- ★ Lunar landings
- ★ Destroys lung and brain cells
- ★ Destroys joints, seals, and suits

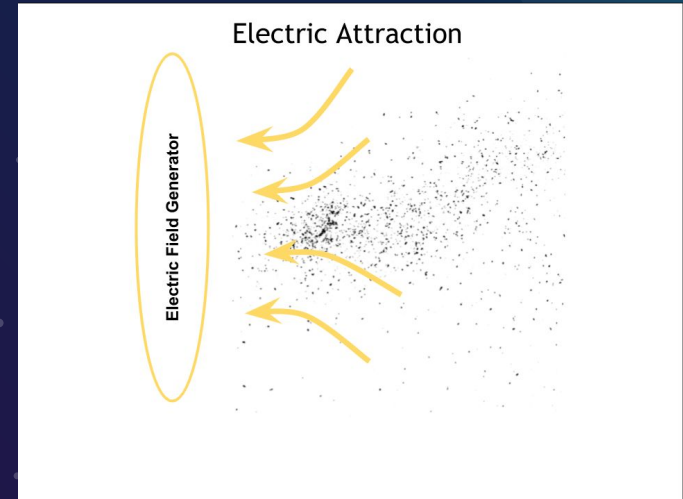
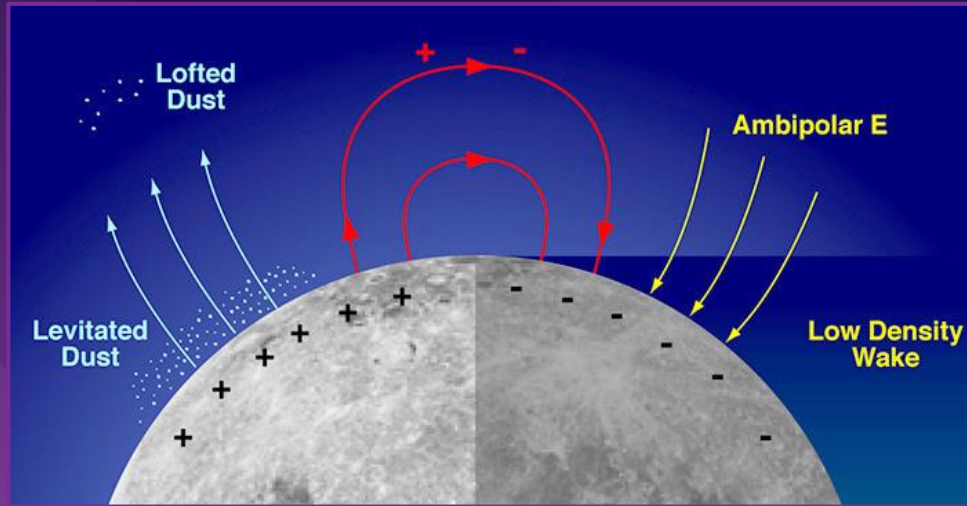


IMPACT

- ★ 100% of people who have stepped on the moon have experienced symptoms
- ★ Kills up to 90% of exposed brain and lung cells
- ★ Causes spacesuits and sealants to degrade rapidly
- ★ Prevents long-term stays on moon

THE SOLUTION

- ★ Lunar dust particles are charged
- ★ Use electromagnetic fields to manipulate dust



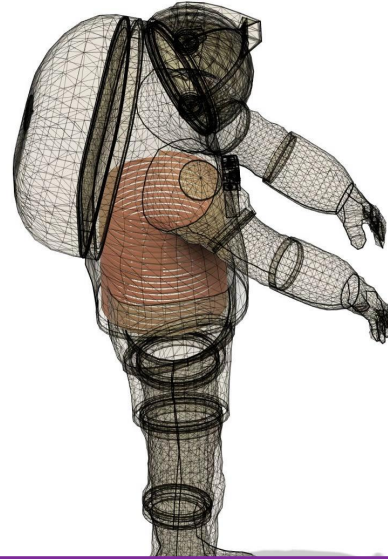
RECYCLABLE OBJECT DECONTAMINATOR (ROD)

- ★ Electrically-charged “brush” for exposed items
- ★ Recycle collected lunar dust (e.g. as fertilizer)



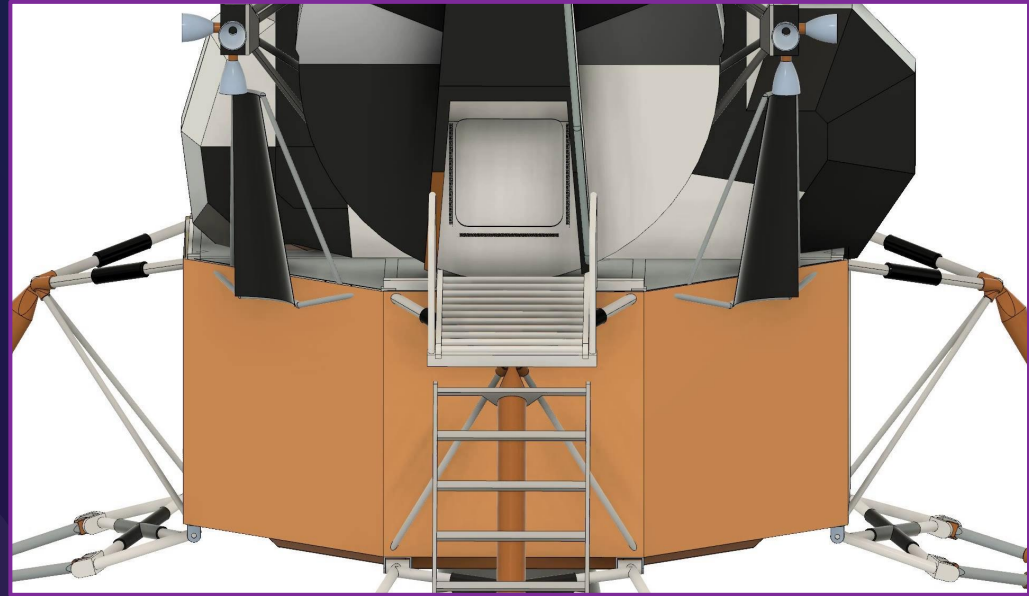
SPACESUIT DUST DEFLECTOR

- ★ Longevity of spacesuits is greatly reduced by dust
- ★ Wrap wire inside suit torso
- ★ Current generates E-field and reduces particle contact



HATCH DUST-GUARD

- ★ Seals around hatch deteriorate rapidly
- ★ Run wire around hatch doorway; generate E-field
- ★ Reduce impacts from dust particles





WHAT HAVE WE ACCOMPLISHED?

- ★ A more realistic and sustainable future in space travel
- ★ Safe life for astronauts on the Moon, and beyond
- ★ Increased longevity of space systems
 - ★ Spacesuits
 - ★ Spacecraft
 - ★ Solar panels
 - ★ Radiators
 - ★ Communications
 - ★ Rovers[®]
 - ★ Robotics
 - ★ Mechanical tools
 - ★ ...



QUESTIONS?