Robots for Human Exploration
New ways of exploring the Moon, Mars & beyond

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Apollo Surface Operations

Jack Schmitt & LRV (Apollo 17)
What’s changed since Apollo?

- Kaguya
- Chandrayaan
- LRO
- 3D simulation
- Phoenix
- Zoë
- ATHLETE, K10, Chariot
- MER, Sojourner, MSL
- Dante II
Robots for human exploration

**Before Crew**
- Robots do work before humans arrive
- Scouting, prospecting, etc.
- Site prep., equipment deploy, etc.

**Supporting Crew**
- Robots work in parallel with humans
- Inspection, mobile camera, etc.
- Heavy transport & mobility

**After Crew**
- Robots do work after humans leave
- Follow-up & close-out work
- Site survey, supplementary tasks, etc.
Different robots... Different forms...

K10 Planetary Rover

Smart SPHERES
July 25, 2010
Haughton Crater, Devon Island, Canada
Questions?

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