

2018 Workshop on Autonomy for Future NASA Science Missions

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Nonprehensile Terrain Manipulation on
Planetary Exploration Rovers

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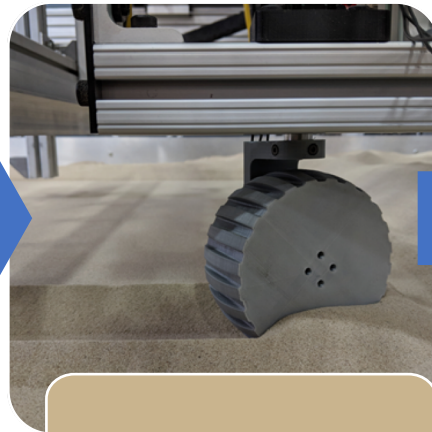
Nonprehensile Terrain Manipulation on Planetary Exploration Rovers



Add functionality to planetary exploration rovers without adding hardware while saving mass and energy



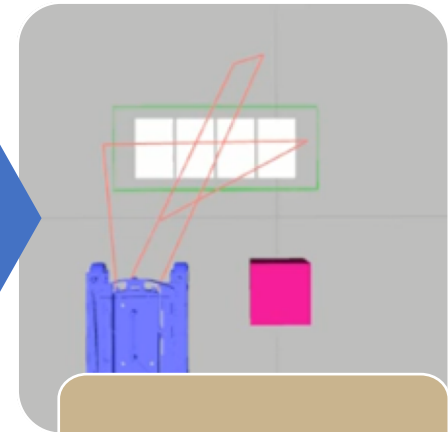
Identify potential mission scenarios + requirements



Develop robot – soil interaction models



Develop manipulation primitives



Integrate into kinodynamic planner

Current project: use robot-soil interaction models to gain NPTM-specific rover design insights