Project ID:		**Client:**	Marc Carmichael
Project Title:	UTS Rover Paver Project	**Affiliation:**	UTS Rover Team

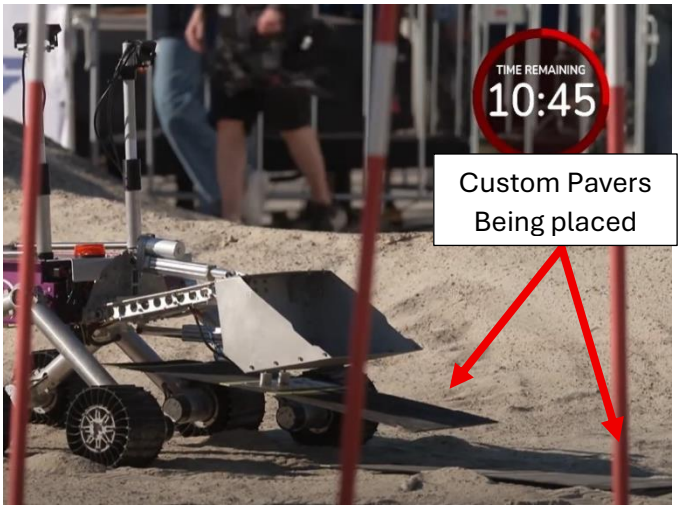
Description:

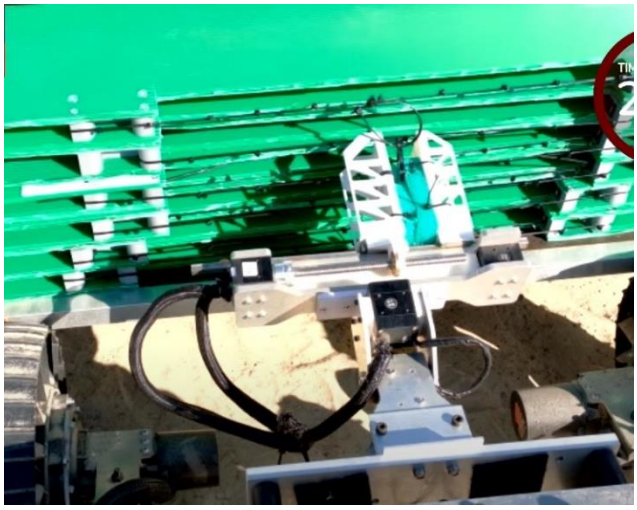
The UTS Rover Team is a student led semi-autonomous rover team that competes in the Australian Rover Challenge (ARC) every year, against 20+ teams from around the world. The competition is broken into 4 tasks, one of the key elements of the 'Excavation & Construction' Task is to build a path out of pavers as a dust mitigation strategy.

This DMMS project aims to solve this task for the rover team, with a large focus on intricate passive mechanism design utilising 3D printing, laser cutting, and other tools easily accessible at the university. This project is very hands on and will require extensive iteration to achieve an effective solution to the problem whilst remaining within the ARC requirements and working with the rover platform we have and continue to develop.

The project is intentionally left open as there are a wide range of solutions to this task, and creative solutions backed by extensive prototyping will be a key focus.

The ARC requirements are linked below page 32-33:
https://set.adelaide.edu.au/atcsr/australian-rover-challenge/ua/media/566/arch_rules_and_regulations_2025-v1.1-2024-08-19_1_0.pdf





Deliverables:

- Evidence of exhaustive testing and prototyping
- CAD design of pavers, rover mounted mechanism for deployment, paver box
- Manufacture of full-scale final iteration based on prototyping
- Testing with current rover platform to confirm performance

Skills Required	Not required at all	Might be required	Some experience required	Moderate experience required	Significant experience required
Mechanical engineering					**X**
Mechatronic engineering			**X**		
Electronics	**X**				
Programming	**X**				
Hands-on manufacturing					**X**
CAD (e.g. Solidworks)				**X**	
Artistic Design	**X**				