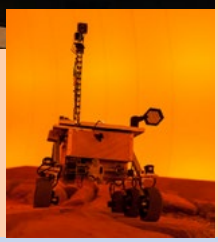
Proposed Concepts

Mars Yard

Simulates a real-life Martian landscape and the challenges that will be faced by robots and people when they're living on Mars.

1. Mars Rocks - This is the central focus of Mars Yard and should be a Martian landscape. Example activity could be a treasure hunt to collect objects e.g. parts for a rover, geology, identify signs of life etc.

2. Mission Control – Using interactive software to monitor systems which includes needing to problem solve and effectively communicate during a staged catastrophe. VR can be incorporated as part of this experience.



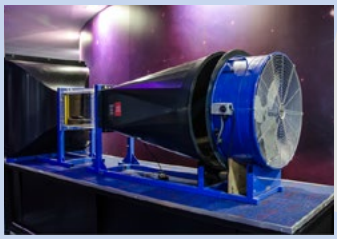
3. Robotics: Build, Run, Repair – Students learn about the importance of scientific roves and get hand on experience with robotics and programming.

Fly Zone

Linking terrestrial applications with space enabled technologies. Students will need to consider future technologies that will be required to get to the moon and beyond.

1. Build Your Own Sat-a-light Workshop – DIY Workshop: Students build <what the sponsor wants> to be showcased in the exhibition. Example build specifications could be to include a circuit for a light and panel for them to write a space related message. Satellites to then be set up in a giant constellation as a public display.

2. Drone Racing – Flying and crashing drones through an obstacle course of "space debris/junk". Students will learn to fix their drones and learn about space junk and share ideas on how to clean up space.



3. Rocket Wind Tunnel – Students learn the fundaments of rocketry and aerodynamics. They learn how heavy things fly by designing and creating an aerofoil based off the principles of functioning aircrafts