CONTEST RULES:
1. Teams must be registered by 11:59pm Friday, August 30. To register your team, fill out the form at https://tinyurl.com/ManufacturingAtMines. A Canvas page will be set up for future communication.
2. This project is student driven. We will provide faculty coaches to offer advisement but the expectation is that the student teams will operate independently.
3. An external panel of distinguished experts will judge the competition.
4. The first deadline is 11:59pm on October 11. Deliverables for this deadline are:
   i. a summary quad chart (template to be provided)
   ii. a three-page (max) description of your solution to the challenge
   iii. a three-minute video where you should “sell” the judges on your creative solution.
4. A select number of teams will be chosen from the first judging round to proceed onto the prototyping stage. Resources (cash and expertise) will be made available to the chosen teams to help with prototyping costs.
5. Final judging will occur late in the Fall 2019 semester, pending scheduling from our expert panel. Teams will present their prototype along with a 10-15 minute presentation on their solution. The winning team, along with the first and second runner-up teams will receive cash prizes.

ASSUMPTIONS:
1. The weight (on Earth) of the rover is 250 kg. It has four wheels and will have a maximum payload of two astronauts at any given time. Maximum deflection is no more than 10% of the unloaded wheel diameter at the maximum load.
2. The wheel must be able to be packed for transport at 50% the unpacked volume.
3. The wheel must have a mechanism that can be used to sample the soil as it moves. This can either be continuous or on-demand sampling.
4. The approach must be economically viable. Cost and schedule must be reasonably estimated and judgment must be made as to whether this constitutes “economically viable”.