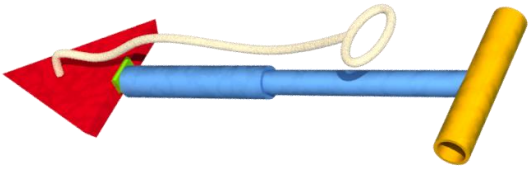
NASA Micro-g NExT Design Challenge
SCooping AsteRoid Anchor Borer (SCARAB)

The Micro-g NExT program is run by NASA and challenges undergraduate students to design build, and test a tool or device that addresses an authentic, current space exploration problem.



About the Challenge

The challenge selected requires the UTD team, Temoc Space Industries, to design and build an anchor for an asteroid. Test operations are conducted at the Johnson Space Center over the course of a week. Portions of the event will be broadcast on NASA TV.

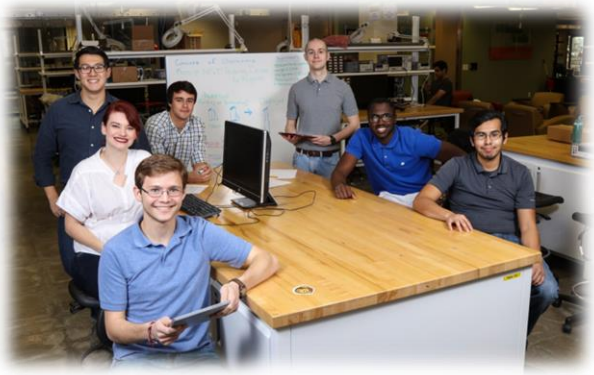
Past and present schools accepted include other top engineering schools: Cal Poly, Embry–Riddle, Purdue, University of Illinois, UT Austin, Columbia University, Duke, Cornell, Virginia Tech, etc.

About SCARAB

SCARAB is a man-operated proof of concept for a larger vehicle-sized device. SCARAB is deployed and inserted into loose soil using the handle, after fully immersed the cable is pulled to re-orientate the wedge to 90 degrees. The cable is then used to connect a payload to the wedge, thus securing it.

About the UTD Team

Consists of eight UTD students – Five mech majors (three of which are seniors), two geology majors and one biomedical major.



Funding

NASA is providing $800 of funding but the majority of that is not awarded until late into the project or after its completion. In the meantime we have been entirely self-funded. We a very quickly approaching expenses that we won't be able to cover and to remain a viable we will need funding. We are expecting our total budget not to exceed $5315, so the amount we will need from a primary funding partner is $4515.