

They entered the NASA MINDS competition many months ago with their TILE project that aims at creasing the lifetime of electronics during the harsh lunar night. They were recently selected as finalists in the competition out of dozens of projects across the nation and are giving a talk to NASA panelists today 5/4/2022 between 12-12:30pm.

They will be using adobeconnect for this meeting. The talk is open to anyone who is interested in viewing. Here's the link.

<u>https://secor.adobeconnect.com/minds2022seniorpresentations/</u> (<u>https://secor.adobeconnect.com/minds2022seniorpresentations/</u>)

To receive extra credit, watch the talk and post your thoughts and comments below. Please highlight something specific you found interesting. You only need to watch their presentation. There may be other presentations also being made, but for the extra credit, it's only their presentation that you need to watch. The scheduled time is 12-12:30, but of course it depends on how NASA conducts their sessions, so the exact time may be different.

NOTE ON EXTRA CREDIT POINTS:

Even though it says it's worth only 1 pt, that's not indicative of how it works. The "one point" really means, "one extra credit talk", and all the talks for the semester (Zoom talks and other events like the solar observation and star party) get 1 pt, but then the total translates to 5% of extra credit for the class. So, if you do did all the extra credit offered (including this one), then you get half a letter grade boost to your final grade.

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Brian Wolden (https://canvas.sbcc.edu/courses/46681/users/274832) Sunday

It was really interesting to see a project being proposed to NASA! It gave me a lot of insight into how to think about presenting these sorts of projects and what sort of questions may be asked in response! In short, the project was about creating a system for Lunar modules to survive the extreme temperatures (100K-400K) on the Lunar surface, particularly during the very cold and long Lunar night. Their particular focus was on the electronics and came up with a response of insulating the electronics to reduce heat loss and having sensors set up to regulate the temperature (like a thermostat in your house) heating the insulated tube when the temperature drops below a certain level. They believe they can reach a 17 day survival level using this system which is more than sufficient to survive the 14 day Lunar light. They are still conducting testing to get it to this point as well as to determine the affects the hot Lunar days, as well as the repeated fluctuations in extreme temperatures may have on overall li-ion battery life.

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