FAQ

General

Q: *Can an institution join both categories?*

A: Yes, institutions are allowed to submit two proposals, one for each category, but the teams must be completely separated. No sharing of team members, social media accounts, STEM engagement numbers, etc. is allowed.

Q: *When do teams register in Gateway?*

A: Only selected teams will register in NASA STEM Gateway; instructions will be sent out following proposal acceptance.

Q: *What is the limit for the number of visa letters sent to international students?*

A: International teams are sent one official letter of invitation to the event to aid in obtaining visas. Seven invitations are in the letter, one for the Team Advisor and 6 for student team members.

Q: *If a team submits a proposal for both divisions will there be any conflict in acceptance criteria?*

A: No, all proposals are looked at individually and will be scored based on individual merit and requirements verification.

Q: *Can we go with a 2-column theme like a research paper for the Proposal?*

A: All deliverables, to include the proposal, should follow the guideline put forth in the handbook. 2-column papers do not follow this guideline.

Q: *What are the minimum and maximum number of students on a team?*

A: We have no set number for this – teams of 3-4 students have been successful, however, it is rare for a team of less than 6 to complete the program. There is no maximum number of students for the challenge, but there is a limit (see international limit) on how many meal vouchers are given to each team at the culminating event.

Q: *Will we be able to buy additional meal tickets at the event?*

A: This is something we strive for every year, but so far, the answer is no. In lieu of meal tickets we will make every effort to provide additional options with food trucks.

Q: *Our team has a completed rover from a previous year that was unable to compete, are we allowed to use the same rover for this year?*

A: No – the purpose of HERC is that a rover is designed and manufactured within one challenge year. While some re-use, particularly of the chassis, may be allowed, the technical team will determine if too much of a rover is re-used and the team may face disqualification. It is vital to identify any components a team plans on re-using from a prior year as early as possible so we may advise teams.

Q: *If a team submits a proposal for both divisions and only one is accepted can students from the rejected team join the accepted one?*

A: Yes, this is allowed.

Human Powered Division

Q: *Are there task sites this year?*

A: No, task sites for the Human Powered division were temporarily removed to allow teams to focus on rover design and testing.

Q: *Is there a penalty for chain drives this year?*

A: No penalties exist for any drive system this year.

Q: *As far as I know, the proposal must be handed in as a PDF document. But is it possible to make a short video for explaining too?*

A: No submissions beyond the 10 pages of content in the proposal will be scored.

Q: *The handbook mentions a task tool so will there be tasks?*

A: The proposal section is shared for HP and RC, which is why the task tool is mentioned. There is no task tool for the HP division.

Q: *Is (electric, electromagnetic) power allowed to be used on the Human Powered rover?*

A: No. The handbook identifies all requirements for the rover, but no energy storage systems are allowed to be used in the drivetrain to include: batteries, springs, pneumatics, etc.

Q: *Do we need to mention which materials we specifically are choosing to pick, or the options we are considering in the technical design part of the proposal?*

A: At the proposal phase we don't expect any teams to have definite answers – listing options and how they might affect design is exactly on track.

Remote Control Division

Q: *Are we allowed to enter the course with the rover?*

A: Yes, operators will be allowed to enter the course and walk behind their RC rover throughout the entire excursion (to include task sites).

Q: *Are there limits on power generation?*

A: Yes, all rovers are required to be battery powered.

Q: *What will the RC course look like?*

A: The RC rovers will complete the same obstacles as the HP division, with the exception of two that will be scaled down – see handbook for more details.

Q: *How will the task data be validated?*

A: At the PER after the excursion, teams will use a laptop/phone/tablet etc. to visually display the data to a judge at the same time the samples are retrieved and verified, and the HERC sensor package is recovered. Physical memory, direct connection, or wireless connection are all allowed for data processing and visualization.

Q: *Does the same time limit apply for RC as HP?*

A: Yes, the 8 minute time limit is for both divisions.

Q: *Will we be provided with the spectrometer?*

A: No, teams must design their own spectrometer as well as any other task tools and instrumentation.

Q: *Can we use drones (in any way)?*

A: Drones are not permitted at this event due to local regulations.

Q: *If our rover flips/goes off course are we allowed to correct it?*

A: Safely using your hands to reset a rover is allowed, but the score for the obstacle causing the flip would be reduced.

Q: *All four RC task are worth the same amount of points, but vary a lot in complexity and weight. Is there any advantage or incentive to choose the more mechanically challenging tasks?*

A: This is done to allow teams to design based around their area of expertise or interest. The only incentive would be the possibility of a more complex design winning an award for innovation.