



2021 Kerbal Rocketry Challenge Rules

OVERVIEW

Congratulations! You and your team have been invited to the second annual Kerbal Rocketry Challenge. This year, you will be tasked with building a self-sustaining base on the Moon (Mun, in Kerbal-language).

OBJECTIVE

Teams must construct a self-sustaining Mun base that can safely house astronauts, or in this case “kerbalnauts”. To ensure longevity of the base and the kerbalnauts, the base must also include a functional In-situ Resource Utilization (ISRU) module(s). This challenge will require you to construct rockets that can land these modules safely and accurately—you’ll want to land in a consistent location to ensure the materials you’re launching are close to each other on the Mun in your quest to create a realistic base. You will have 500,000 in funds to accomplish this mission. For this mission, your team will need to download the official [2021 Kerbal Rocketry Challenge Save File](#). Instructions for loading this save file are found at the end of the rules.

As proof, your team will need to provide:

- A .ZIP folder containing your submission’s save file
- Multiple screenshots, with the user interface visible, displaying:
 - Your rocket(s) on the launch pad
 - Your habitation module(s) on the Mun
 - Your ISRU module(s) on the Mun

SCORE

Each team’s submission will be scored based on how many of the objectives you achieve below, with each objective worth one point.

- Housing and containing 3 kerbalnauts in a habitation module on the Mun.
- Housing and containing 5 kerbalnauts in a habitation module on the Mun.
- Housing and containing 8 kerbalnauts in a habitation module on the Mun.
- Filling up the liquid fuel and oxidizer of a completely empty Rockomax X200-16 in under 8 hours of mission elapsed time (we encourage you to use the time warp feature to speed up the process).

Teams that achieve all objectives will be judged on the following criteria in order of importance:

1. How much time it takes to fill up the liquid fuel tank.
2. The distance between the modules of the Mun base in meters, with closer being better.
3. The number of additional habitation modules present as part of the base, with more modules being better. These modules do not have to hold kerbalnauts.

REQUIREMENTS

Your team's submission will also need to comply with the following rules:

- All submissions must be played on the game's "Career" mode using the official save file found on page three.
- All modules of your Mun base must be within 150m of each other.
- All kerbalnauts must be inside habitation modules to count towards scoring.
- A team's final submission must use the provided save file.
- No additional technologies, buildings, or contracts may be used in your submission.
- Teams may not use any of the banned parts listed in the "Banned Parts" section.
- No add-ons, modifications, or other downloadable content other than the American Rocketry Challenge Flag Pack may be used.
- No cheats, console commands, exploits, or techniques such as part clipping may be used in a submission.

JUDGING

A group of American Rocketry Challenge judges will review each submission to ensure it abides by the requirements, and no mods, add-ons, or exploits were used in the design of the rocket.

PRIZES

The first place team will receive \$3,000 and second place team will receive \$1,500.

SUBMISSIONS

Teams must upload their save file and screenshots to the American Rocketry Challenge online portal. Only one submission is permitted per team. The deadline for uploading your submissions is 11:59 PM EST on August 8. Winners will be announced at our live awards ceremony on August 16.

TIPS AND TRICKS

Kerbal Space Program has tutorials on how to operate various aspects of the game. Under “Start Game”, you should see a “Training” option. This series of missions will help you become acquainted to the game if you are new, or if you need a refresher.

All trainings leading up to and including “To the Mun, Part 1 & Part 2,” are useful for learning how the game works. Completing these missions will allow newer players to become acquainted with game mechanics and aspects of the Kerbal Rocketry Challenge mission. However, these trainings are not required.

Additionally, the Kerbal Space Program wiki is a comprehensive resource that contains data about any aspect of the game including launching, parts, planets, and much more! If you find yourself confused, using the wiki can help you get an in-depth explanation.

BANNED PARTS

Your team may not use the parts listed below in your submission for the competition:

- EAS-1 External Command Seat
- LV-N "Nerv" Atomic Rocket Motor
- MK-3 Passenger Module

OFFICIAL SAVE FILE

[Click here to download the “Kerbal Rocketry Challenge” save file.](#)

To load the save file, first extract the files from the .ZIP folder. Then, go to the “saves” folder in your game’s root directory and drag the extracted “KRC” folder into your “saves” folder.

[Click here for instructions on finding your game’s root directory.](#)

Teams are free to experiment and practice using other save files, but your submission must use the provided save file.