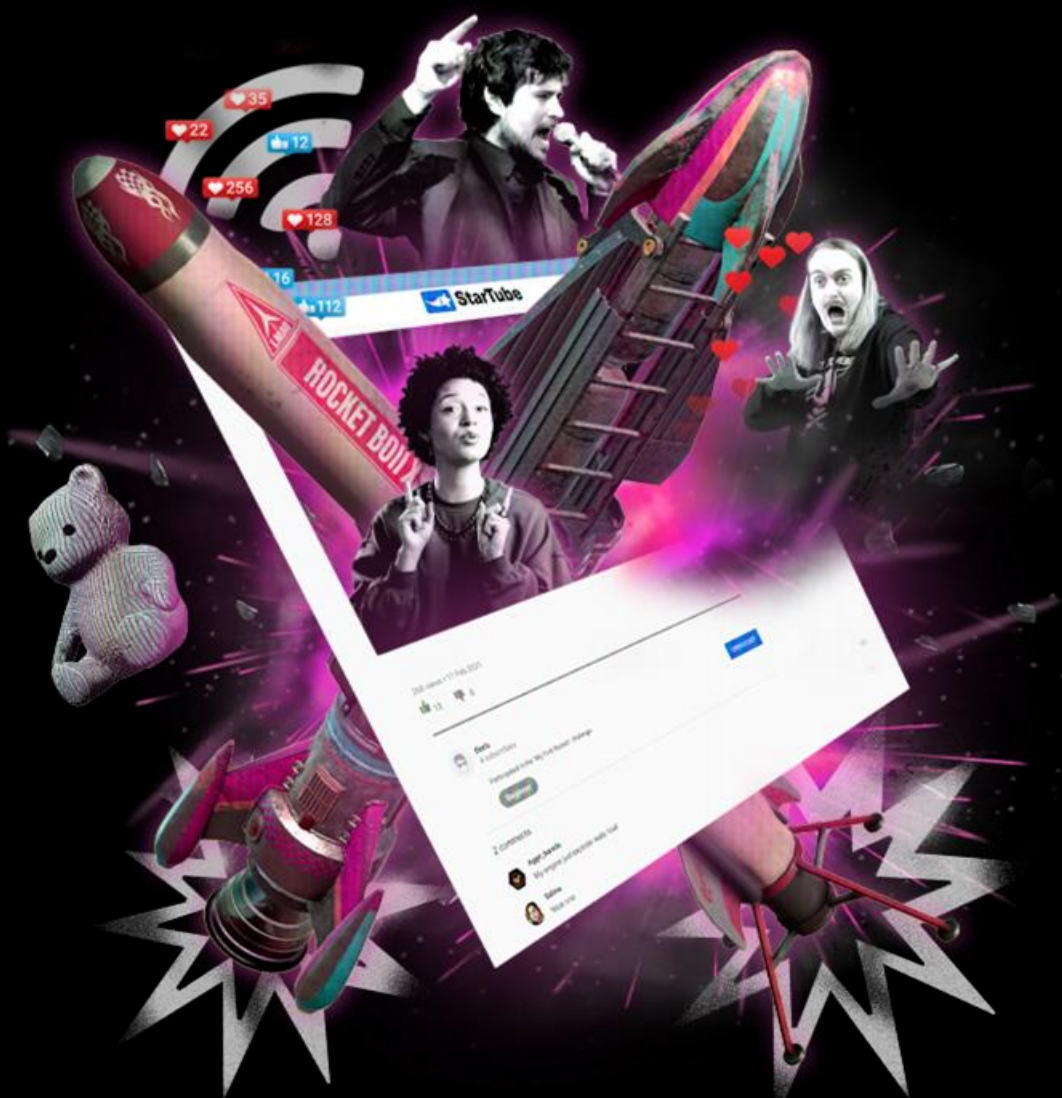


Unofficial Player Guide for Next: Space Rebels



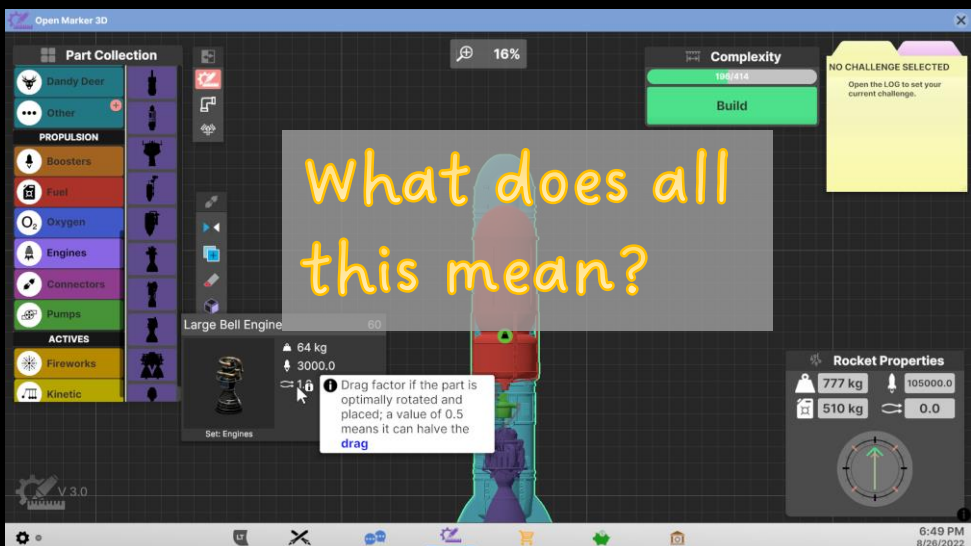
Version 1.2
Aug 2022



Introduction

Next Space Rebels (NSR) is an addictive game where you build serious, and sometimes wacky, rockets to complete challenges. Unlike Kerbal Space Program which strives for realism, the developers of NSR took some artistic license with Newtonian physics and orbital mechanics to make a casual rocket simulator.

One of the annoyances of this otherwise 'stellar' game is the lack of tutorials and documentation. Learning how to build flyable rockets is hard enough (it is 'rocket science' after all). Unfortunately, the design of the game also requires you to figure out how to use the interface as you learn the game mechanics.





Introduction: Purpose and Disclaimer

The purpose of this guide is to explain the user interface and mechanics of the game so you can focus on learning how to build and launch rockets. This guide is not a walkthrough.

This is not an official guide and is in no way associated with Studio Floris Kaayk or Humble Games. Apart from any copyrighted material belonging to them and YouTube contents creators, the contents of the guide are based on my experiences during my playthroughs on Xbox and PC.



Introduction: Guide Sections

This guide is split into two sections:

Section 1: Become a Rocket Scientist explains the user interfaces for designing and launching rockets.

Section 2: Become a Social Media Celebrity covers the game-within-a-game you must master to earn money and to progress the narrative through the three chapters.



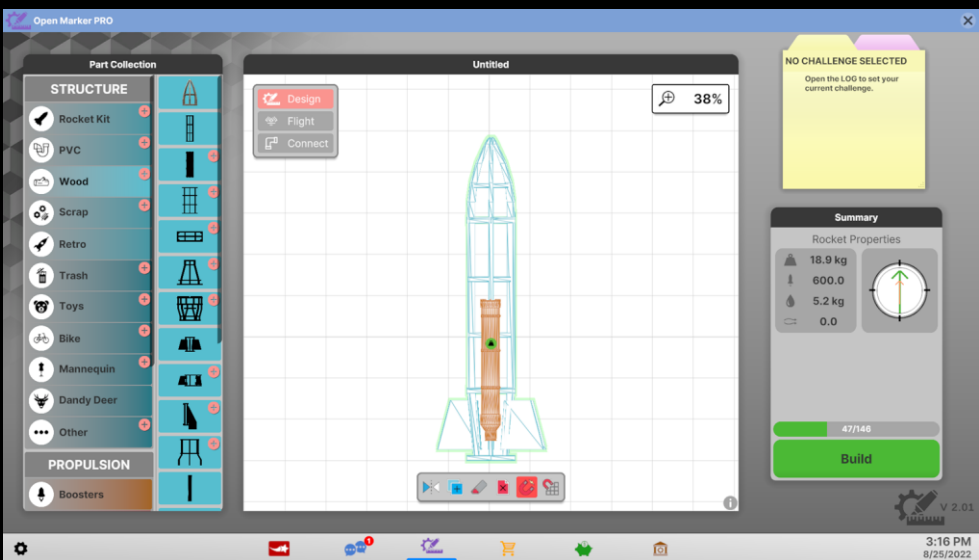
Section 1: Become a Rocket Scientist

The game is played through a fictional operating system. The applications you use to play the game are in a taskbar along the bottom of the screen. From left to right is StarTube, Chat, Open Marker, DIY Shop, Bank, and Parts Museum. This section primarily covers the Open Marker application. StarTube is covered in section 2 and the other applications are self-explanatory.



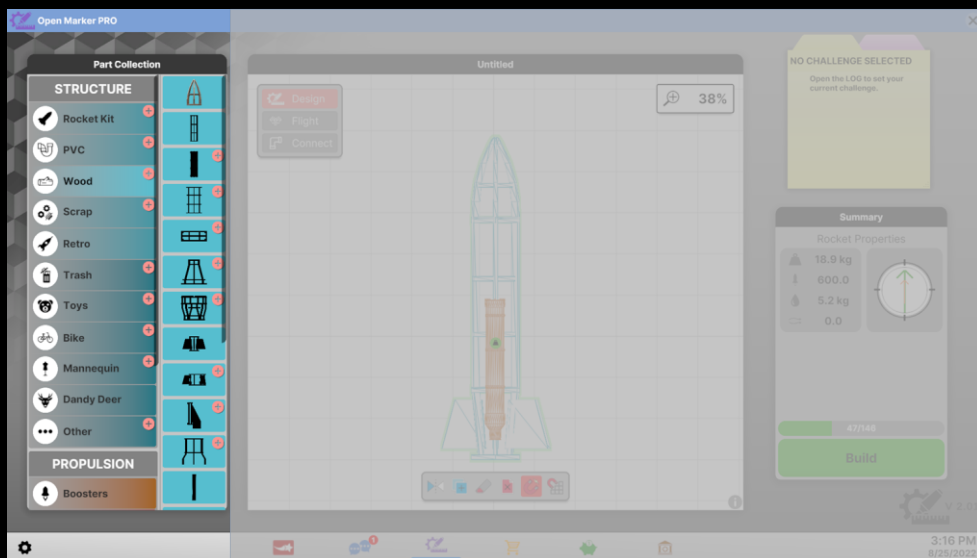
Design and Build

Designing your rockets is done through the Open Marker software application. You start with version 1 of the application at the beginning of the story, The Open Marker application is upgraded twice throughout the game. This guide uses version 2 because it is the version you use the most while learning the mechanics of rocket design.





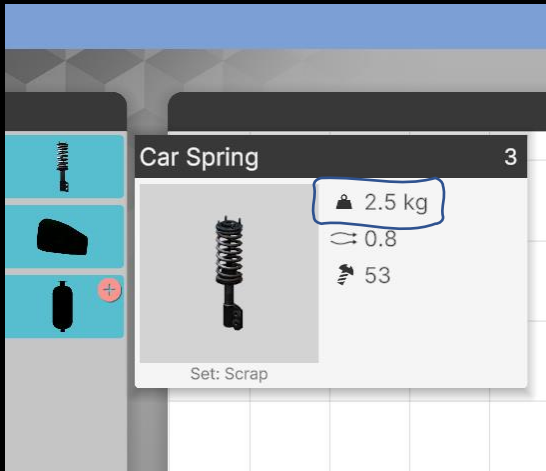
Section 1 Part Collection Pane



Part Collection Pane

You start the game with a model rocket kit. As the game progresses, more people you meet through chat will give you parts. Other parts you will have to buy from the DIY Shop. Everything you acquire is dumped into this inventory. Parts are divided into Structure (The components you build the rocket with - or use as cargo) and Propulsion (Everything necessary to make a rocket fly...or explode ; ^)

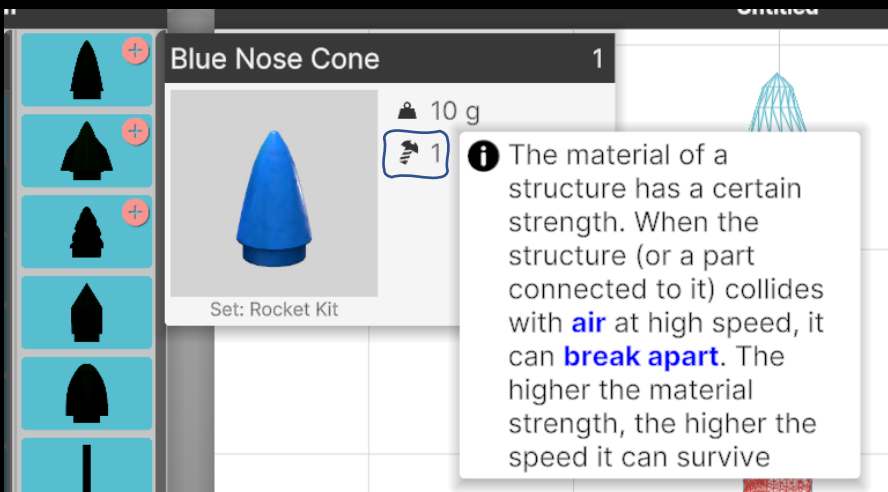
Parts Properties. Clicking on a component in the right side of the Part Collection pane will open a standalone window. This window contains a wealth of information...which is barely explained by the game.

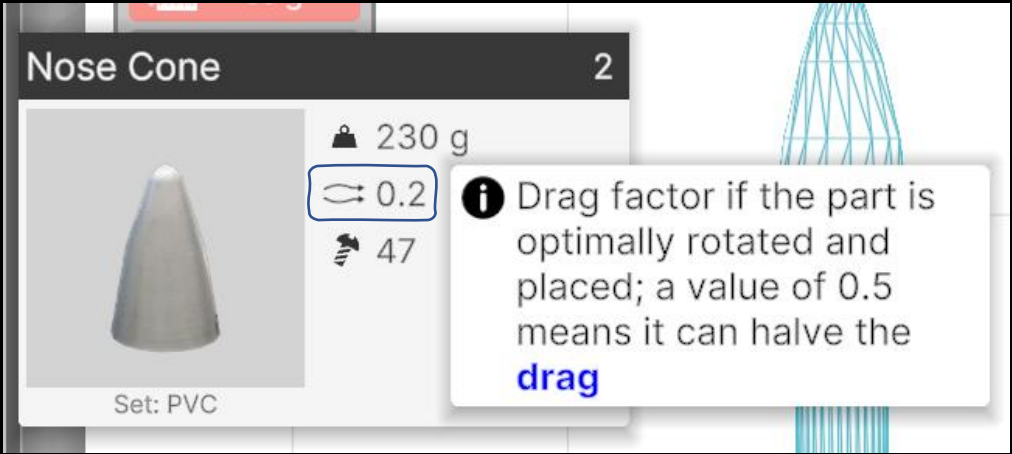


Mass is simple for most components. Fuel and oxygen tanks have two listing for mass to indicate the component's weight with fuel/oxygen and when empty.

Strength (screw icon) is a value from 1 to 300. This number indicates how much flight stress the component can take before it decides to abandon ship.

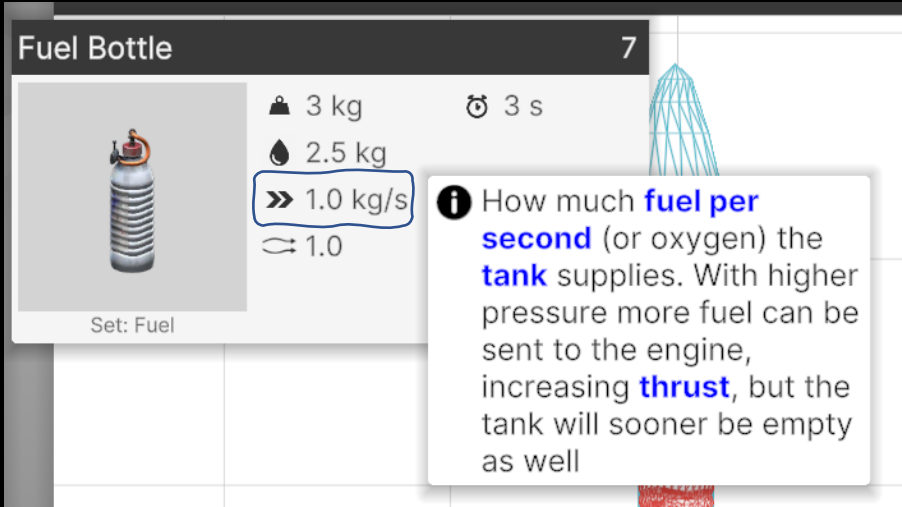
Tip: If your rocket is breaking apart at launch or while making a turn, look for weak components to replace or to reinforce.





Drag (curved arrows icon) is a value between 0.1 to 1 with 1 being the highest.

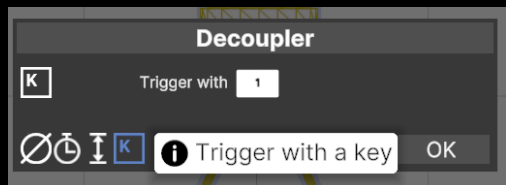
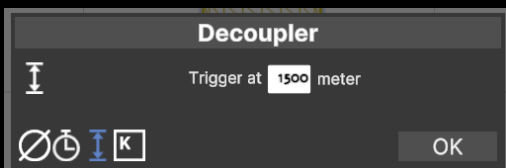
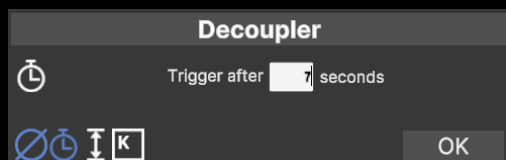
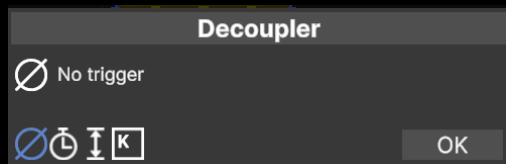
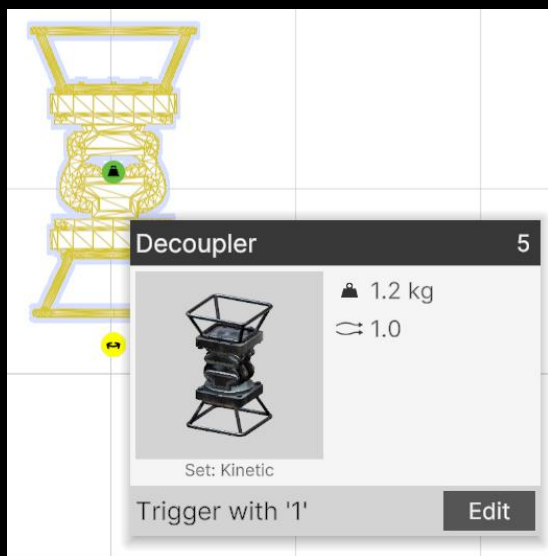
Complexity. The number in the top right corner (the 2 for this nose cone) indicates how many points will be removed from the pool of points available for the build (covered later in the Summary tab).



Fuel rate is how quickly a kilogram of fuel (or oxygen) drains from the tank per second when not connected to a pump.

Burn Duration (clock icon) is how long it will take to drain the tank without a pump. For example, a tank with 30kg of Fuel Mass with a Fuel Rate of 1 kg/s will be empty in 30 seconds. If you install the small pump with a 2 kg/s Fuel Rate, the Burn Duration drops to 15 seconds (assuming the engine you use is rated for a flow rate of 2 kg/s or more).

Section 1 Trigger Settings

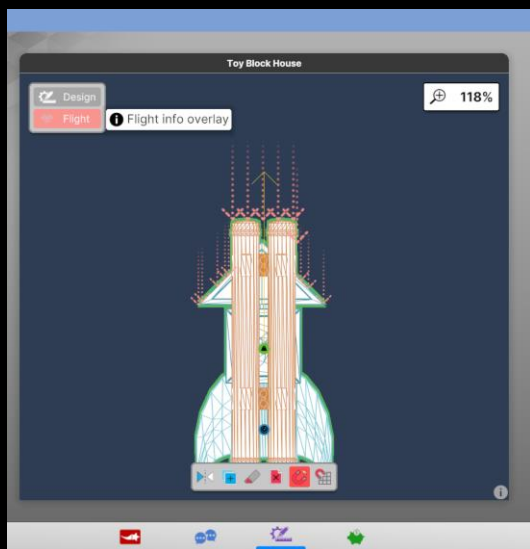
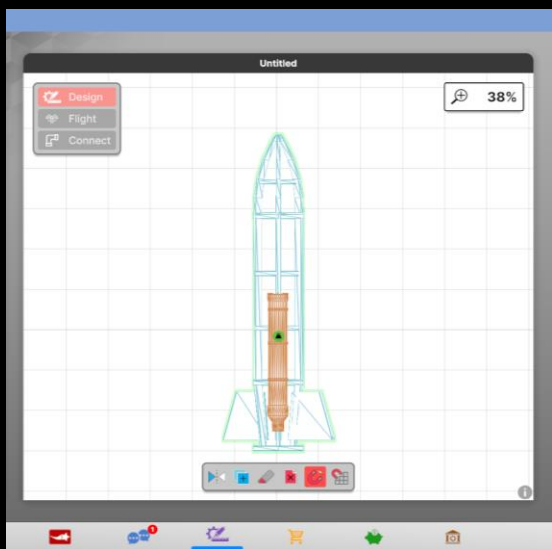


Trigger Setting. Components in the Fireworks and Kinetics tabs, and the Gate in Connectors, include settings that determine when they will trigger:

- None. Essentially makes the component dead weight.
- Time. The number of seconds after launch to trigger.
(Fireworks only use Time).
- Altitude. How high up the rocket needs to have traveled to trigger.
- Key. Assign a keyboard key or controller button to manually trigger the component.
- Swivel Rate. Swivels only trigger with the Key setting. Swivel Rate is how fast the swivel bends when you press the key.



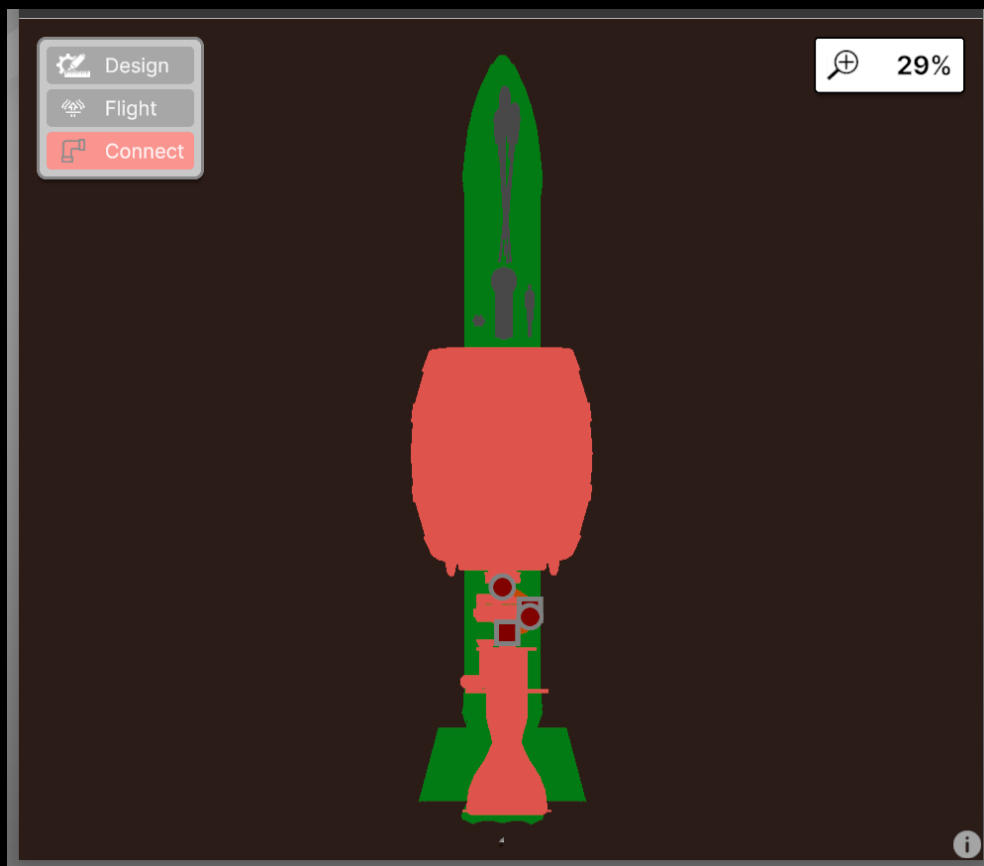
Section 1 Drawing Board



Drawing Board

The Design canvas is where you drag-and-drop structure and propulsion components to build your rocket. You can move the canvas around and zoom in and out. The green anvil icon shows the Center Of Mass of the rocket. This is the pivot point the rocket rotates around in three dimensions. You will see this icon move along the X and Y axis as you add components and move them around.

The Flight canvas shows a simplified view of the rocket. Dashed arrows show where the airflow will create drag. The color of the arrows indicate how strongly the drag will work to keep your rocket from leaping into outer space. The arrow colors transition from green to yellow to red.

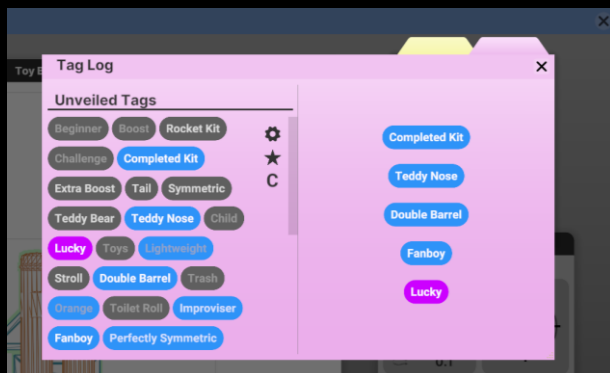


The Connect canvas is where you literally draw the pipes that fuel and oxygen will flow through. In the Connect canvas all structure components are rendered as a flat two-dimensional drawing surface and cannot be selected.

Tip: If you are having trouble selecting and moving small propulsion components like connectors and pumps, temporarily switch from the Design canvas to the Connect canvas.



Section 1 Challenge and Tag Logs



Challenge Log

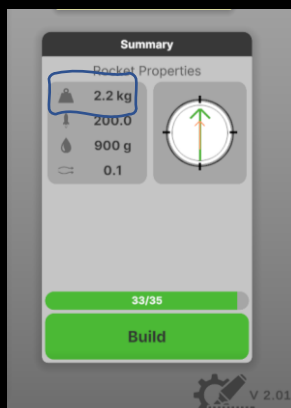
This is where you select the challenge you want to tackle next. If you want to experiment or farm for subscribers and cash (explained later), you can deselect the current challenge.

Tag Log

The home screen of StarTube shows all the tags you've unlocked in a giant jumble. This tab provides a cleaner interface to manage your tags. You can also select up to 5 tags to create your own rocket design challenge. (Tags are described in more detail in Section 2.)



Section 1 Summary Tab



Summary Tab

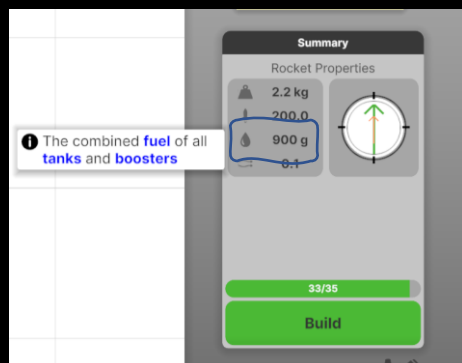
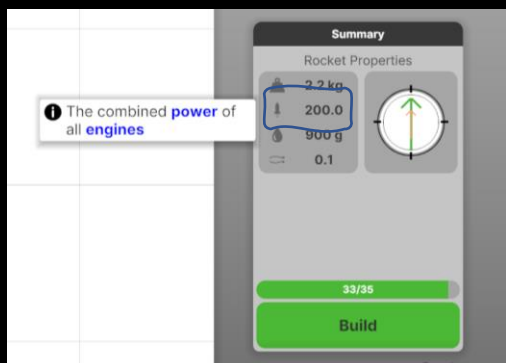
This tab displays the properties of your rocket as you design it. With practice, you will learn how to use this information to get a general idea of how well your rocket launch will go.

Mass. The mass of a rocket is computed from the weight of all components and the weight of the fuel and oxidizer. For challenges requiring your rocket to have a specific mass at a certain altitude, the mass must be equal to or higher than the specified number when it reaches the target altitude.

(Spoiler Alert) For example, in the challenge to get a 500 kg rocket to 10 km, the weight of the components and all remaining fuel and oxidizer must equal or exceed 500 kg when the rocket reaches 10 km – not the weight at launch. (This is where the dry weight listed for propulsion components becomes useful).



Section 1 Power, Fuel Weight, and Drag



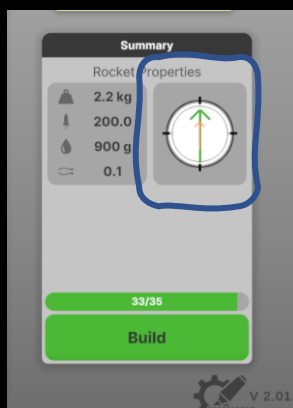
Engine Power. The rocket icon has a number that indicates the amount of total thrust all the engines produce. I still have not figured out what unit of measure the number represents. (This value in particular is why I wish official documentation or a wiki existed to explain the game to us gaming-chair rocket scientists.)

Fuel weight. The weight of all sugarfuel in boosters, fuel in tanks, and oxidizer in bottles.

Drag value. This value ranges from 0.0 to 1.0 with a value of 1.0 being the equivalent of flying a brick wall.



Section 1 Direction and Balance



Direction and Balance. The large green arrow is the direction all the engines combined want to push the rocket (the Axis of Thrust). The teeny, tiny barely perceptible orange arrow bends in the direction your rocket wants to lean due to a weight imbalance, drag on the structure, or the cant/slant of your boosters or engines. In most cases, a slight reposition of a fuel tank or a heavy cargo item can bend this arrow until it is aligned with the green arrow. (Alternatively, you may want to build in a slight lean to increase the horizontal distance the rocket flies.)

Note: For the tall, heavy rockets you build later in the game, if this arrow is shifted as much as a single pixel to the left or the right, your rocket will almost never fly straight and true (see Chaos Factor below). This is especially frustrating on the console version where you do not have single pixel fidelity.



Section 1 Complexity Limit



Complexity Limit. Your first impulse will be to build a huge rocket that can take you to a galaxy far, far away. To protect the universe from dangerous amateurs, your rocket designs are constrained through complexity points. As you complete challenges, you earn complexity points which allow you to add more and/or better components to your rockets. As mentioned earlier, each component has a complexity point value listed in the top right corner of its pop-up window.

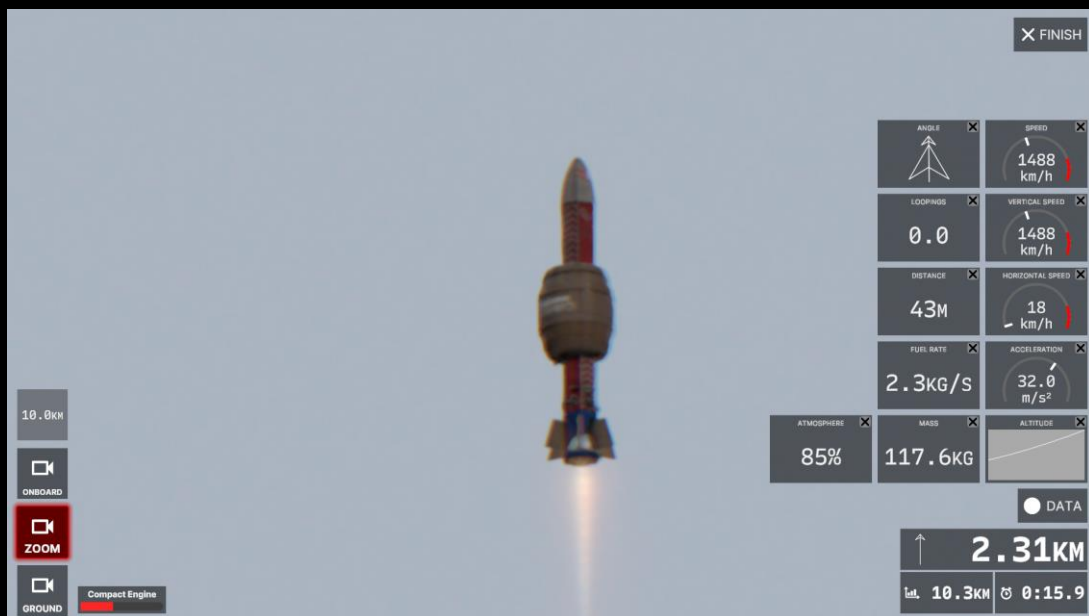
Tip: If you run out of points, see if there's a similar item with a lower complexity point value you can substitute into your build.

Build Button. Press this button when you are ready to turn your design into a flyable rocket. If this button is red, there is a problem with your design. The game does a good job of informing you why your rocket design is not flight worthy. The only exception is when you have exceeded the complexity points you have available.

A short video plays showing your rocket being built and then the rocket appears at a launch site.



Section 1 Launch Screen



Launch

The launch screen is where you let your assembled rocket take flight. In the bottom left of the screen are gauges visually depicting the amount of fuel in your boosters and/or fuel tanks.

Flight Data Sources. When your rocket is ready to fly, you will notice on the right side of the screen are gauges for your flight data, known as telemetry. The default configuration shows 3 of the 10 available telemetry gauges. You should be turning these gauges on or off for each flight to troubleshoot issues preventing you from beating a challenge or achieving specific tags. (Unfortunately, there are no game settings or options to allow you to always display your favorite gauges.)



Section 1 Flight Data Gauges



Speed. How fast the rocket is traveling regardless of its orientation or direction of flight.

Vertical speed. How fast the rocket is traveling up towards space.

Horizontal speed. How quickly the rocket is going sideways to see the Wizard of Oz.

Acceleration. How much the speed of the rocket is changing over time. This can be a negative value.

Altitude. Graphs the change in altitude, up or down, over time as opposed to the value in the large gauge that displays real-time numbers.



Section 1 Flight Data Gauges



Atmosphere. How thick the air is at the current altitude. The less air there is, the less drag on the rocket and thus the faster you can accelerate the rocket (see Max Q below).

Angle. Where the nose of the rocket is pointed. For multistage rockets with decouplers there are arrows for upper and lower stages. The large arrows tracks the lower stage.

Loopings. How many times the rocket spins in a circle around its center of mass.

Distance. Horizontal distance the rocket has flown away from the launch site.



Section 1 Flight Data Gauges



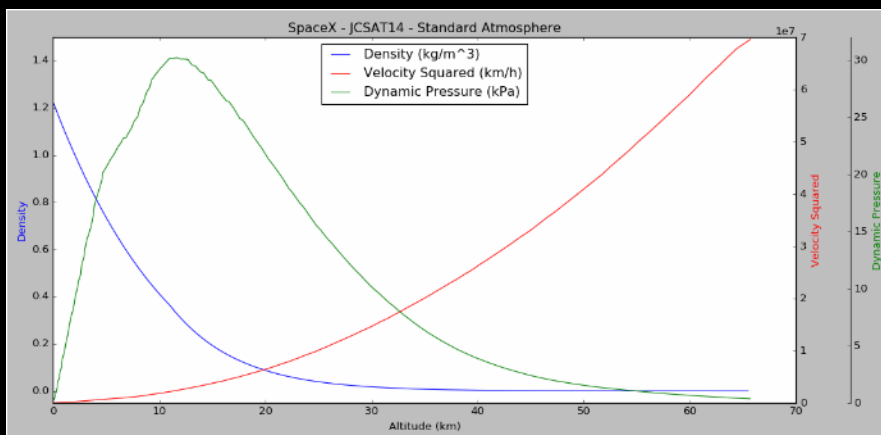
Fuel Rate. How much fuel is flowing per second through the engines.

Mass. How much the weight of the rocket changes as fuel is burned and components detach (whether planned...or not). The number seems to reflect the component(s) at the highest altitude.

Note: Many gauges have a red portion. Kenny Logins calls this the Danger Zone. Becoming a 'Top Gun' rocket designer is all about knowing when you can cross into this zone without experiencing what Elon Musk refers to as a 'rapid unscheduled disassembly' of your rocket.



Section 1 Max Q and Chaos Factor



Max Q. Technically, this is not mentioned in the game, but is important to know. In addition to weak components, a rocket can break up when it exceeds Max Q. Max Q is the point at which the resistance of the atmosphere and the thrust of the rocket engines is at their strongest. Essentially, these two forces are working in opposition to crush your rocket like a soda can.

Tip: Watch any SpaceX launch video on YouTube. The announcer will explain why they throttle down the engines until they have passed through Max Q.

Chaos Factor. None of the launch sites have a windsock, but wind does seem to be part of the game. There may also be a random number generator rolling virtual dice whenever you press the launch button. The point is that you can create a perfectly balanced, low drag-coefficient rocket and still have it decide to fly sideways. With some challenges, you are better off relaunching multiple times rather than tweaking your design to fix a non-existent flaw.



Section 1 Perseverance Pays Off

Reusing Rocket Blueprints. For some inexplicable reason, design blueprints are stored in the video uploads. To use an earlier rocket design for the next level of a challenge, open a video on the StarTube website and click on the Open Marker icon. The blueprint will be loaded into the Open Marker Design canvas. I made a habit of always clicking on the icon after uploading a video. This way I never start with a clean canvas unless I decide to start fresh.

Perseverance. None of the challenges are optional if you want to beat the game. If you have completed all the challenges in your queue and the story is not progressing, try the following:

- Open StarTube and look for videos with a blue border. Someone in the comments section wants to chat with you. This often results in progressing the story or giving you a component you need to tackle a challenge.

- Check the chat window for anyone with a red or blue indicator to continue a conversation.

- Build and launch rockets with components you have not used to unlock new tags for your videos.

- Some characters who gave you rocket parts will wait until after you've flown one or more rockets with those parts before they will chat with you again.



Section 2: Become a Social Media Celebrity

Posting videos to StarTube to gain subscribers and earn ad revenue is the game-within-a-game. This is arguably the least enjoyable side of NSR. Love it or hate it, this is the mechanic the developers came up with to implement a feeling of progression and a desire to build 'just one more rocket'. You will need to learn how to exploit the social media elements to buy all the components necessary to beat the game.


At the end of a rocket flight, a window displays how well you did achieving the requirements of the challenge and the types of tags you unlocked or achieved. You are then given a choice of Back to Design, Retry Launch, or Upload Video

Launch Feedback

Launch Summary

- ✓ Launch successful
- ✗ Challenge "I'm Really Sorry Fred" not achieved
- ! Unstable flight angle due to fins not being strong enough for the amount of thrust
- ✓ Achieved several rare tags

Launch Details		Records	
📏 Peak Altitude	11.8 km	Record Altitude	44.1 km
📏 Reached Distance	278 m	Record Distance	19.2 km
📏 Top Speed	1472 km/h	Record Speed	2515 km/h
📏 Average Speed	670 km/h		
📏 Air Time	35 s		

 BACK TO DESIGN  RETRY LAUNCH  UPLOAD VIDEO




Section 2 Video Upload Form

TAGS - AWESOME 16km 2R-3E

Title (required)
TAGS - AWESOME 16km 2R-3E

Description
Tell the viewers about your video




Tags

Tags are an important part of video creation. Choose the most engaging ones so viewers can find your video.

Fashionable Spin Wood Pump Tail Fuel 5/5
Barrel Engine Symmetric Sound Barrier
Flash Mob Fireworks Pump Nose Pipe
Algae Plane Right on Time Pyromaniac
Tree Cherry Flower Power

Thumbnail
Select a picture that shows what your video is all about.



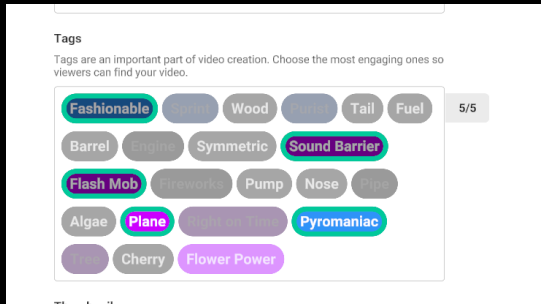
BACK TO DESIGN UPLOAD VIDEO

When you click on the Upload Video button, a web form comes up. The first field is **Name**. This field will be discussed after the other fields are explained.

Description. I never found this field useful (and it is painful to fill in on console) so I skip it.



Section 2 Tags



Tags. You unlock tags based on the type and blending of components used to build the rocket, things the rocket does (like hit buildings, knock things over, fly fast, fly sideways) and achieving altitude and distance milestones. Unlocked tags are saved in the Tag Log.

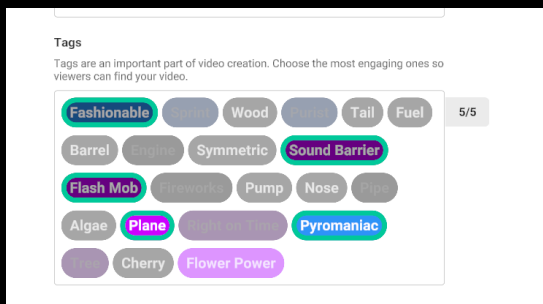
Rarity. Tags have 5 different rarity levels: Common in gray, Rare in blue, Epic in purple, Legendary in orange, and Viral in red. The higher the rarity, the more subscribers a video earns. You start being able to only assign 1 tag to a video. As you progress, you will unlock the ability to assign up to 5 tags per video.

Categories. Tags are grouped into 15 categories and some tags belong to multiple categories: Cool, Awesome, Wild, Creepy, Funny, Smart, Aspiring, Cute, Weird, Gross, Naughty, Geeky, Noob, Clever, Nerdy

Warning: The tag unlocked for completing a challenge is only available once. They are often Legendary or Viral rarity so should always be assigned to the video. These tags cannot be reused because challenges cannot be repeated



Section 2 Tag Combos



Tag Combos. This is where you can make a profitable video from a failed launch or turn an amazing flight into a video that nobody watches.

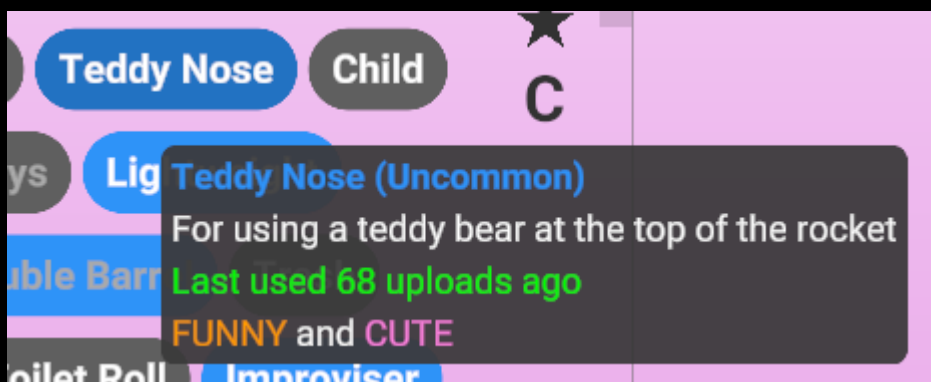
The rarity of the tags you select as well as matching their category(s) is how you gain subscribers and earn money. Create tag combos by matching tags from the same category and earn multipliers. The multipliers increase the number of new subscribers you receive.

When you first unlock a tag, the category(s) is not listed. You will need to create a combo with another tag and upload a video to reveal the category. If the tag belongs to multiple categories, you need to match the tag with tags from each category. This may not be possible in a single video. You will need to reuse the tag. The more tags that have a matching category, the better the combo. The better the combo the more followers and money you will earn.

You can view the category of a tag (if known) by mousing over the tag name. The tags also record the last time they were assigned to a video. This is important whenever you want to reuse a tag.



Section 2 Reusing Tags



Reusing Tags. To get to the next rank or to earn the money you need, you may need to build and launch rockets specifically for the tag combos you can create. This is known as 'farming' and is well-explained in this video by Dreamaise. <https://youtu.be/RzqGgLwMI3o>

Briefly, what you need to know is that tags have a cooldown period after you assign them to a video upload. Once a tag is used, you will not receive points for using the tag again until you have uploaded 10 more videos without using the tag. However, you should consider using an inactive tag still on cooldown if it will make for a better combo. The inactive tag will not receive points, but the active tags will receive a larger multiplier for creating the better combo (this can be seen in the Analytics tool once you have received and installed it).

Note: Reusing the tag will reset the cooldown counter back to one. The cooldown counter is important when farming for viewers and money.



Section 2 Naming Videos

A screenshot of a video upload interface. At the top, it says 'TAGS - AWESOME 16km 2R-3E'. Below this is a form with a 'Title (required)' field containing the text 'TAGS - AWESOME 16km 2R-3E'. To the right of the title field is a video thumbnail showing a rocket launch. Below the title field is a 'Description' field.

Name. The name field is auto-populated either with the name of the completed challenge or the number of the video upload (e.g., Video #17). When I create a rocket that gives me the flight profile I like, I want to reuse the design rather than create a new rocket from scratch for every challenge. Unfortunately, rocket blueprints are stored in the videos and not in Open Marker. Finding a blueprint when you have uploaded dozens of videos can be difficult without a descriptive name. Rather than accepting the default names, you should develop your own naming convention so that videos are easier to find later.

Name Prefixes. For rockets designed based on tags rather than a challenge, I name the video: TAGS-[combo names]

Tip: If you create 10 or more tag combo videos, you can cycle through them repeatedly to farm for viewers and cash.

Name Body. The body of the name should be descriptive. What does the rocket do (fly fast, fly high, loop, etc.)? What tag combos did you select? What type of rocket parts did you use? How big is the rocket? I often add the altitude reached.



Section 2 Naming Videos

Name Suffixes. You might append codes for the number and types of tag combos the rocket achieves. For example, 1C-1R-1E-1L-1V mean 1 Common (black), 1 Rare (blue), 1 Epic (Purple), 1 Legendary (Orange), and 1 Viral (Red).

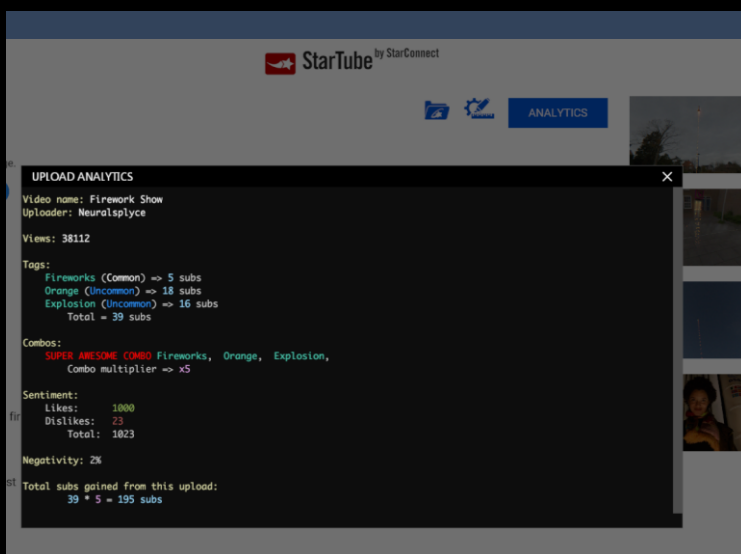
The first time you upload a video with a set of tags, you will not know how many views and subscribers the tags generated until after the video has been uploaded. I create a cheat sheet to write this information down. The next time I use the rocket blueprint and upload a video, I use the same name prefix and body but append the views and subs. This makes farming efficient. By the second time I have flown a rocket design, I now have a video with a name like:

TAGS – CLEVER 1.7mil / 3.2k 2R-2L-1V

TAGS – GROSS, FUNNY 670k / 1.3k 1R-3L-1E

BODY - Wood-Medium-Looper 15km

BODY - Retro-Large-Fast 572km





Conclusion

Space is calling you. I hope you found this guide useful and in turn experience more entertainment and less frustration while sending your rockets into the heavens.



Please send corrections and comments to qfkwriter@gmail.com



RESOURCES

Own Your Tags by Demaise

<https://youtu.be/RzqGgLwMI3o>

Crib Sheet for Tags and Rocket Components

[NSR Cheat Sheet V3 \(credit to sariq for the first tab\) - Google Sheets](#)

Max Q and Why Does it Matter?

<https://therocketscienceblog.wordpress.com/2018/06/24/max-q-and-why-does-it-matter/>

Max Q – Maximum Dynamic Pressure

[Max Q - Maximum Dynamic Pressure | Sean's Blog \(seanmcleod.github.io\)](#)

Rocket Trajectory – Why Not Straight Up?

<https://www.thespacetechie.com/rocket-trajectory-why-not-straight-up/>