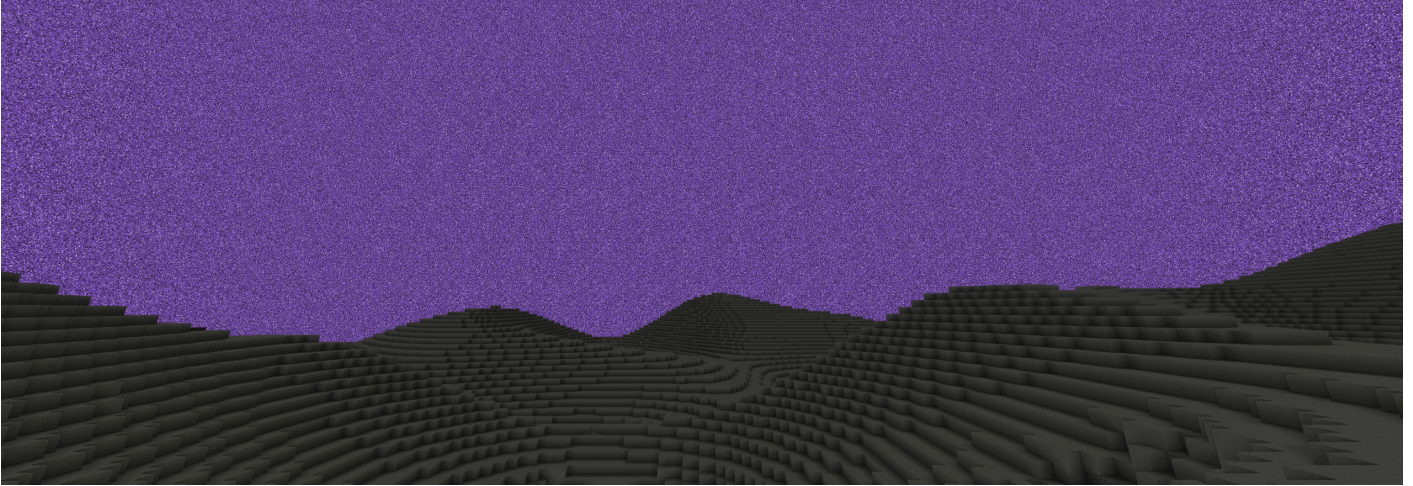


Getting Started

Just getting started with Galactifun? This section will help give you a basic crash course.

- [Space Travel Basic Requirements](#)
- [Space Suits](#)
- [Planetary Movement and Distances](#)
- [Sealing an Area](#)
- [Fuels](#)

Space Travel Basic Requirements



There are a few basic item and machine requirements to get you into space. Your first destination will be the Moon or Low Earth Orbit. I would recommend going to the Moon because you will need resources from the Moon in order to travel deeper in space.

Machine Requirements

Below are the bare minimum machines you will need in order to get to space. The machines are organized by the specific Slimefun add-on they fall under. Click on each machine to view the dedicated page for that machine.

Galactifun

- [Space Suit Upgrader](#)
- [Oxygen Filler](#)
- [Circuit Press](#)
- [Refinery](#)

- [Assembly Table](#)

GPS

- GPS Control Panel
- GPS Transmitter(s)
- Geo Scanner OR Portable Geo Scanner
- Oil Pump

Electricity

This could change depending on your setup, but you will need an electricity setup sufficient enough to power the Galactifun and GPS machines as they use electricity. In general, you'll need:

- Energy Regulator
- Energy Capacitors
- Power Generation (Solar Panels, Generators, Nuclear Reactors)

Slimefun

- Enhanced Crafting Table
- Compressor

Item Requirements

The following items are basic requirements to travel to space. You will use a combination of the machines in the "Machine Requirements" section.

- [Space suit](#)
 - [Helmet, Chestplate, Pants, Boots](#)
 - Chestplate must be filled with oxygen using the [Oxygen Filler](#)
- [Space suit](#) must be upgraded using the [Space Suit Upgrader](#)
- Launchpad
- 1 Launchpad Core
- 8 Launchpads
- Tier 1 Chemical Rocket

- 2 buckets of Fuel

Other Considerations

Teleports do work on an SMP server, however, you may want to bring a second launchpad setup and spare fuel so you can get back to [Earth](#) from the [Moon](#).

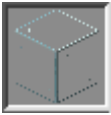
Space Suits

A space suit is an essential set of items you must have to travel space in Galactifun. Not only does it provide you with Oxygen, but it also protects you from the heat, cold, or radiation of the different [planets](#) you travel to.

The Suit

The suit consists of these 4 items:

Space Suit Helmet



x3 Upgrade Slots

Unlimited durability

Unlike the other pieces which you put on like normal armor, for the helmet you hold it in your hand and right click to place it on your head.

Space Suit Chest



x3 Upgrade Slots

240 durability (equivalent to Iron Armor)

Space Suit Pants



x2 Upgrade Slots

225 durability (equivalent to Iron Armor)

Space Suit Boots



x2 Upgrade Slots

195 durability (equivalent to Iron Armor)

Oxygen

The space suit chestplate is the only piece of the space suit that holds oxygen. It holds 3600 units which will last you 60 minutes of real life time on a planet with no oxygen. The chestplate takes 30 real life minutes to recharge using the [Oxygen Filler](#).

Theoretically, if your space suit chestplate has enough upgrades for the planet you are visiting you may not need any other piece of the space suit.

Upgrades

Using the [Space Suit Upgrader](#), you can add upgrades to your space suit. These upgrades are needed depending on which planet you visit. For example, Mars is cold and without proper cold resistance upgrades you will freeze to death. Venus is hot, and you'll burn without proper heat resistance upgrades. View each [Planet](#) page to see their upgrade requirements.

There are three types of upgrades:

- **Cold** Resistance Upgrade
- **Heat** Resistance Upgrade
- **Radiation** Resistance Upgrade

Between all 4 space suit pieces, there are a total of **10** upgrade slots. You may need multiple space suits to fit the upgrades you need. Personally, I have 3 suits. One maxed with cold upgrades, one maxed with hot, and one maxed with radiation. Between the 3, I can visit any planet or moon in Galactifun.

Note: You cannot remove the upgrades from a suit once they have been added

So if you are planning to use one suit be sure you plan your upgrades accordingly.

Planetary Movement and Distances

Yes, the Planets Move. Yes, their distance matters. Yes, It's a pain sometimes

The Planets Move

Much like real life, the planets in Galactifun move, and are thus not a stationary distance away from earth. And this distance **MATTERS**. Getting to the moon is easy, but once you start pushing beyond that you will be hit with a realization: **you will not always be able to go to a planet depending on timing.**

I first encountered this with my first attempt to get to Mars. I got my Tier II Rocket created, got plenty of fuel to fully fill the rocket. got everything in place, put down the rocket, filled it to the brim with delicious fuel buckets. Right click on the rocket, and....

WHY IS MARS NOT IN THE LIST?

After searching for answer, I found the answer. The planets move, and even with a Tier II Rocket filled with fuel, Mars can at times be too far for you to launch to.

Dispelling False Info

After working through this mod, I've realized there is some bad info out there. So I'm here to correct this info.

The Observatory "Finds" Planets

Several people online have claimed that before you can rocket to a planet, you need to use the observatory to observe a planet, only then will it show up as a place your rocket can go to. **This is wrong.** As long as your rocket has the fuel to make the difference, you can go to any planet.

What the observatory *actually* does is two main things:

1. View the current distance of all planets, even ones your rocket can't reach right now
2. Observe a planet, which gives you details like temp and atmosphere to prepare before you go there

How Far Does Fuel Go

Simply put, for each bucket of fuel, you'll be able to go **2 million km** (2,000,000 km).

Here's a breakdown for the max distance for each rocket type:

- **Rocket Tier I:** 20 million km (20,000,000 km) | 10 fuel
- **Rocket Tier II:** 200 million km (200,000,000 km) | 100 fuel
- **Rocket Tier III:** 1 billion km (1,000,000,000 km) | 500 fuel
- **Ion Rocket:** TBD

Ammonia Fuel = 4x efficiency

Methan Fuel = 6x efficiency

Sealing an Area

Sealing is an important concept when it comes to building a space base. In order to use machines like the [Oxygen Sealer](#), [Space Heater](#), [Cooling Unit](#), or [Ion Disperser](#) the area they are placed needs to be sealed.

What is Sealing?

Sealing, in terms of Galactifun, means having the area around a seal generating machine completed enclosed with supporting blocks. Sealing starts at the seal generating machine and expands outwards using a flood fill mechanic. If you place an [Oxygen Sealer](#) in a corner of a room for example, it will start at the [Oxygen Sealer](#) and work its way out to the edges of the room. If the room is properly sealed, your machine will say **Operational**. If not, it will say **Area Not Sealed or Too Big**.

What About Range?

The Machines mentioned above all have a range. Most of the more basic ones will seal 1000 volumetric blocks. This means you can have an area of any size as long as the total volume is 1000 blocks or less. For example, a 10x10x10 room would be 1000 blocks. Once you pass the specific range of the machine, you will receive the status **Area Not Sealed or Too Big** and the machine will not work.

How can you extend range?

If you have NOT visited [Venus](#), the simplest way to increase the range of your sealable area is to add more than one of your specific seal generating machine. For example, you can place multiple [Oxygen Sealers](#) in a space and their ranges will stack. It is important to note that you shouldn't put the machines side by side, but space them out. I recommend a 50% overlap. This ensures the full

area is sufficiently covered via the flood fill mechanic.

If you HAVE visited [Venus](#), you will be able to gather the necessary materials for a Super Fan. A Super Fan will extend the range of a seal generating machine by 15%, and this is stackable. So rather than placing multiple machines you could use Super Fans instead. In the case of an [Oxygen Sealer](#), each Super Fan will add 150 blocks, or 15% of the 1000 range.

Supported Sealing Blocks

The below blocks are the only blocks that will work when it comes to sealing. If you use something else, your machine will give you **Area Not Sealed or Too Big**. The list of supported blocks is not huge. You can still use other non supported blocks to create buildings on different planets, you just have to have one layer of supporting sealing blocks.

The known supported blocks are:

- Smooth Quartz Blocks
- Regular Quartz Blocks
- Sea Lanterns
- Waxed Copper Blocks (All weathering styles)
- Iron Doors
- Netherite Blocks
- Diamond Blocks
- Gold Blocks
- Iron Blocks
- Obsidian
- Concrete
- Glass blocks - not panes
- End Portal Frames
- Bedrock
- Regular Terracotta
- Command Blocks
- End Portal Frames
- Structure Blocks

Fuels

Obviously rockets need fuel...but how much?

Types of Fuels

Galactifun includes a few different types of fuels with varying efficiencies. You'll need to make use of most of these fuels in order to visit all the planets and moons.

Bucket of Fuel

The bucket of fuel is the base fuel in the game. You'll use this fuel with your first rocket. It's a very slow process, but is a required process.

Creation

To create a Bucket of Fuel, you will need to use an [Oil Pump](#) to extract oil from a chunk. The Oil Pump will give you Buckets of Oil, which you then input into a [Refinery](#). The [Refinery](#) will turn the Buckets of Oil into Buckets of Fuel which you can input into the launchpad.

Yield

Each Bucket of Fuel will yield **2 million km** (2,000,000 km).

Ammonia Gas Canister

Ammonia is a great fuel to use because it offers 4x efficiency over a normal bucket of fuel. However, you will need to visit [Mars](#) and [Venus](#) to build the various machines required.

Creation

You'll need an Atmospheric Harvester, Electrolyzer, and Chemical Reactor to create this fuel. The process is as follows:

You'll place an Atmospheric Harvester and collect the Nitrogen Canisters, and the Water Canisters.

The Water Canisters are input into the Electrolyzer, which splits it into a Hydrogen Canister, and an Oxygen Canister.

The Nitrogen and Hydrogen Canisters are input into the Chemical Reactor, which will output the Ammonia Gas Canister. This can be loaded into the rocket.

Yield

Each Ammonia Gas Canister will yield **8 million km** (8,000,000 km).

Methane Gas Canister

WIP

Yield

Each Ammonia Gas Canister will yield **12 million km** (12,000,000 km).

Rocket Capacity

Here's a breakdown for the max distance for each rocket type:

- **Rocket Tier I:** 20 million km (20,000,000 km) | 10 fuel
- **Rocket Tier II:** 200 million km (200,000,000 km) | 100 fuel
- **Rocket Tier III:** 1 billion km (1,000,000,000 km) | 500 fuel
- **Ion Rocket:** Max theoretical of 36 billion km (36,000,000,000 km) | 500 fuel
 - The Ion Rocket offers 6x efficiency due to its Ion Engines. This efficiency stacks with the added efficiency of Ammonia and Methane Gas canisters. Methane Gas with the Ion rocket is the most efficient way to travel. For example, you'll be able to reach closer planets like Venus and Mars with only one fuel if they are close enough. See [Planetary Movement and Distances](#)

