

Space Exploration Roadmap

Please don't expect this roadmap to be accurate or up to date. It is a very rough plan of things I intend to add or change and only gets updated every few months.

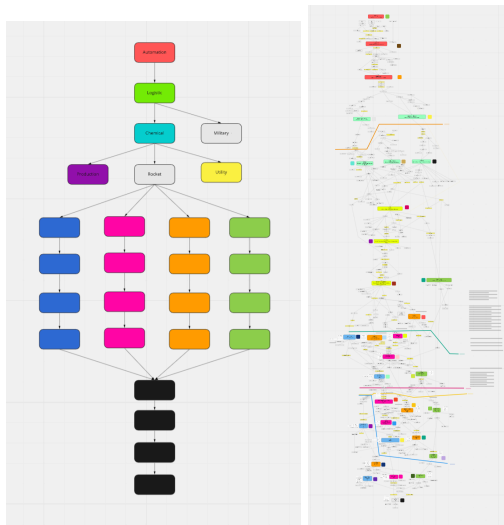
Discord: <https://discord.gg/t6BtZqC>

The most recent updates can be found in the #patrons channel on discord (for people that have donated \geq \$20 via Paypal) or on Patreon.

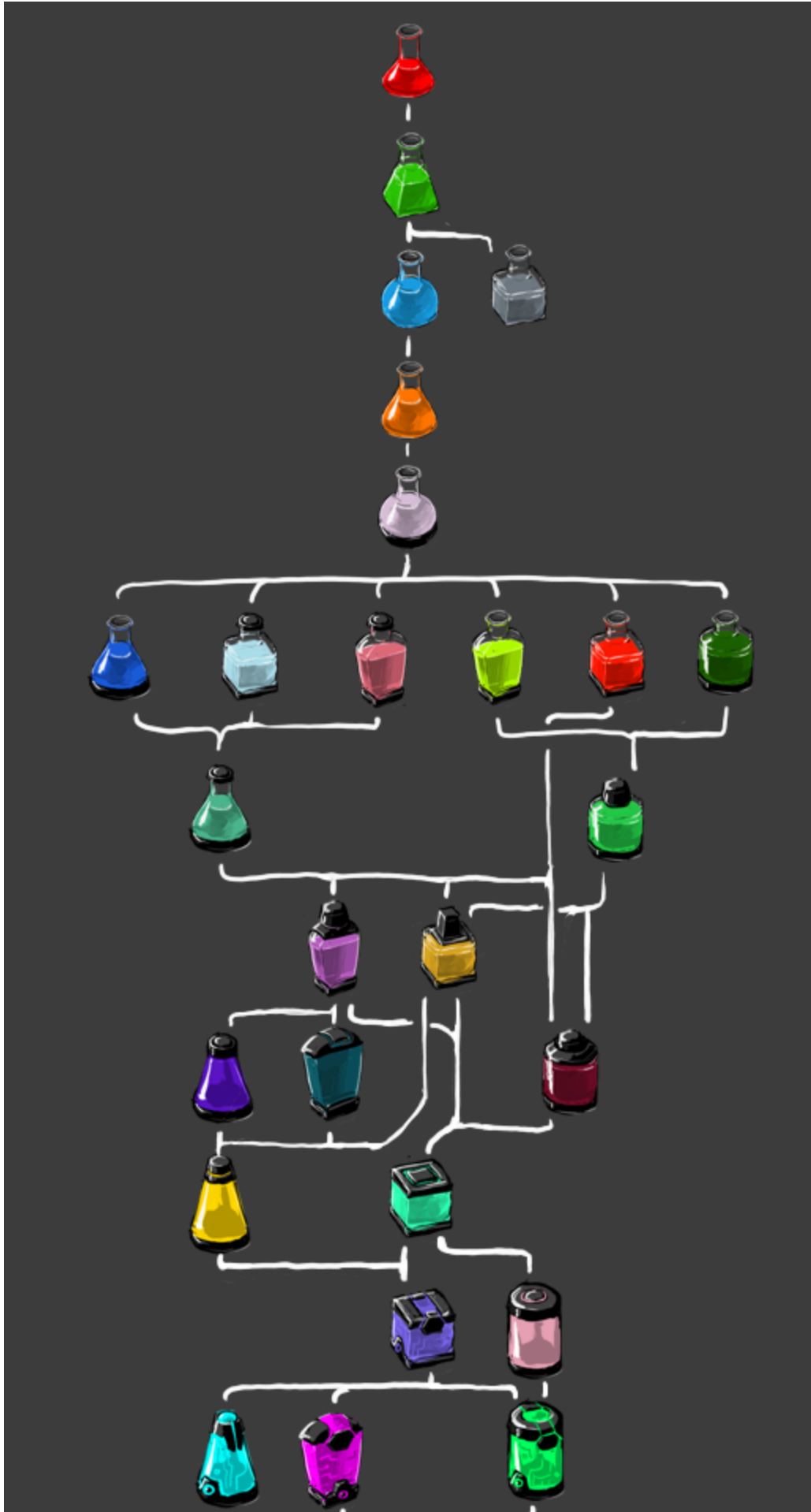
There is also a #development-log channel on discord with updates about 1 month behind the #patrons channel.

The current version of the tech tree does not represent the final intended tech tree. The current tech tree acts like a scaffold so that new content can be built around it. For example, getting access to material science pack 4 doesn't currently unlock anything special unless you already have other high level science packs, in the final version this won't be the case. The areas around the T3 and T4 sciences can't be fleshed out immediately because they will rely on new planets in different solar systems and the planet-specific mechanics have not been developed yet.

Current vs Planned trees:



(The one on the right is intentionally low-res so you can't see the details)



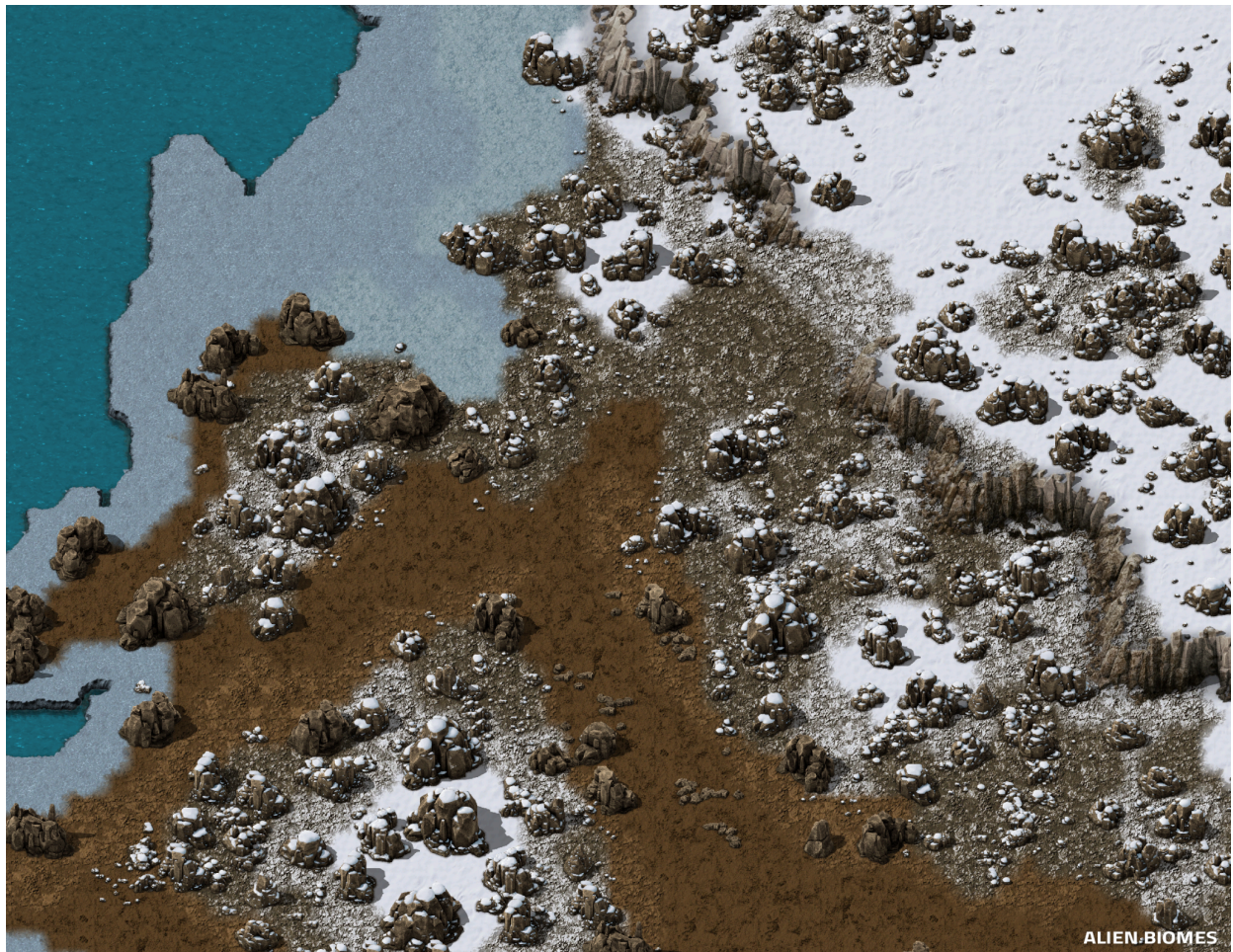
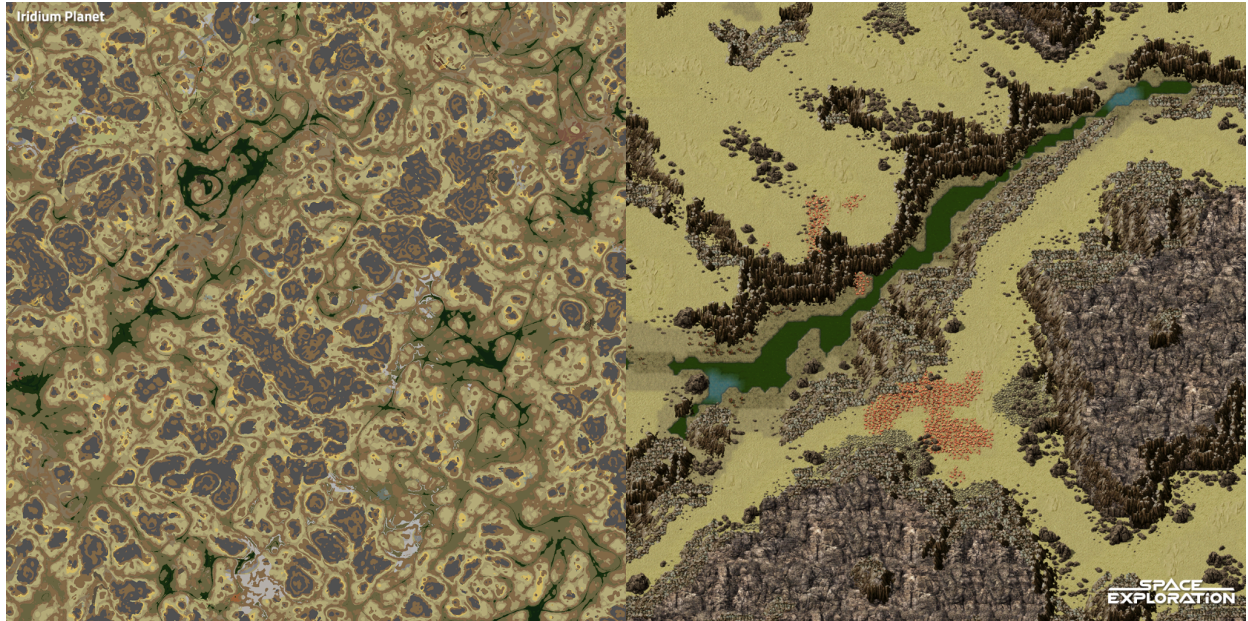
Version 0.7.x

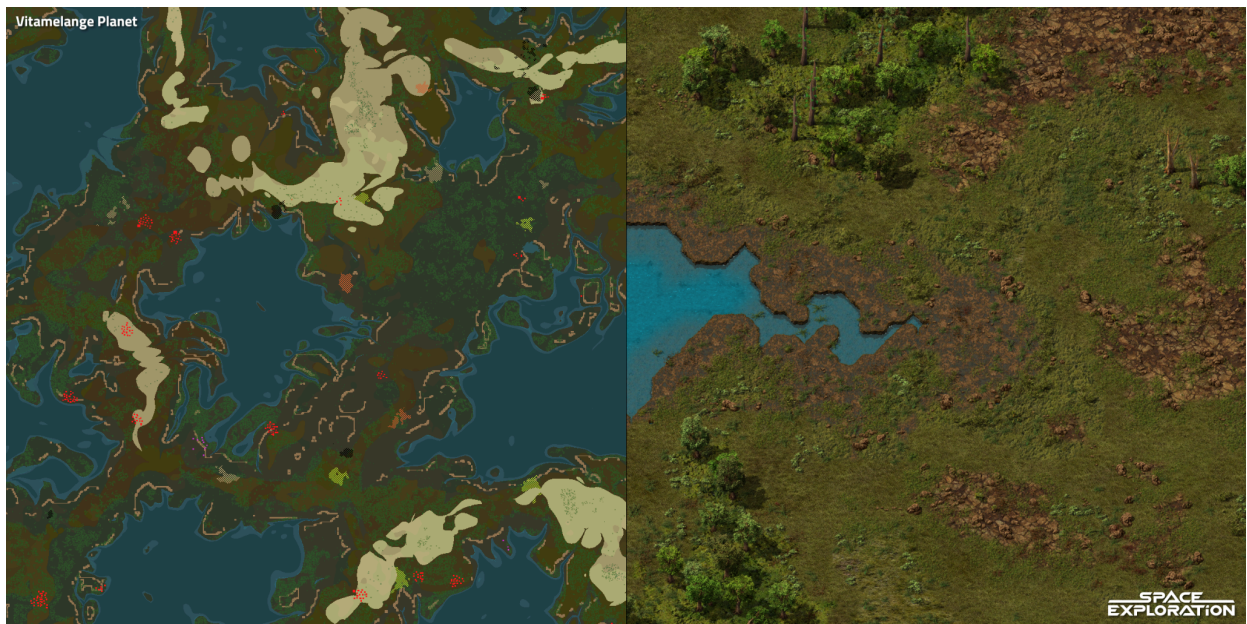
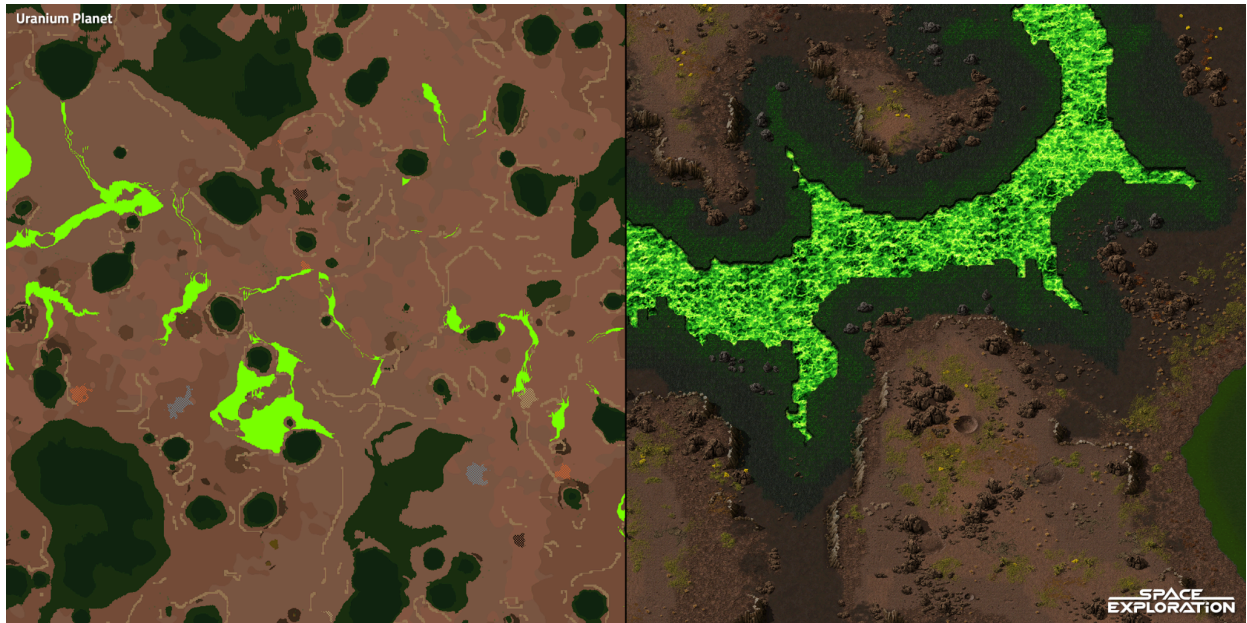
ETA probably some time in 2024, but not sure. It's very unpredictable.

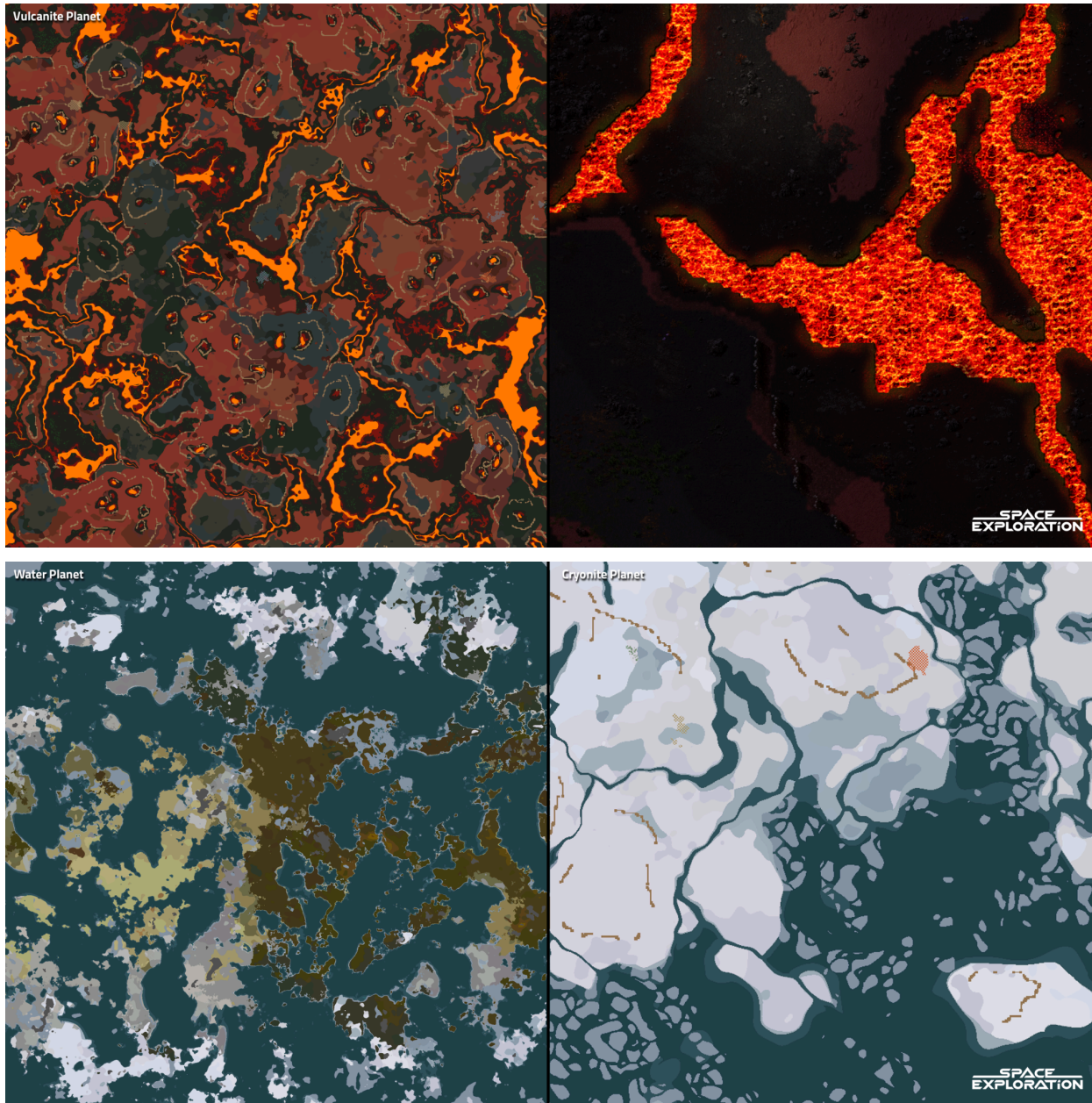
Will focus on:

- More unique planet experiences, alternate resource sources, planet challenges, and planet specific buildings.
- Going to other solar systems around the T3 and T4 part of the tech tree with some new toys.
- Additional biotech toys, including but not limited to Jump Clones.
- At least 3 types of star, each has different sets of allowed planets.
- At least 16 different planet types (you won't need bases on all of them).
- Planets will use mixes of local resources for new resource processing chains.
- Some planets will have science that can be done only there.

Revealed planets & other terrain updates:







See discord for more up to date posts and information for each one.

10 more planet types yet to be revealed.

The rest is a disorganized mix of a todo list and feature ideas:

Will this section ever get properly organized? Seems unlikely.

Spaceship UPS update part 3 of 4.

Spaceship internal code update

No major gameplay changes initially but will change how spaceships function in the code.

Will be required to have spaceships docking to larger spaceships. (mothership-shuttle systems)

- Different types of asteroids, but unlike SA, it will be the type of asteroid that (mainly) determines the resistances, not the size.
- Certain regions mainly have a certain asteroid types based on the solar system or deep space, so you can have a spaceship that's more specialised for a particular region of space (an all-rounder is still ok but larger than it needs to be).
- Collection of some resources from asteroids (but MUCH more restricted than SA), usually only 1 special resource per region e.g. Xenon.
- Actual production chains on moving spaceships, mainly towards late game where you have the space for it.
- 2-part fuels for some thruster types.

Reduce difficulty spikes for DSS.

Add a precursor to arco recipe swapping, to introduce the concept earlier.

Require some recipes to be done in specific locations:

Solar orbit, asteroid field, asteroid belt.

Volcanic planet, Cryonite planet, Lightning planet, Vitamelange planet.

Require settlement of another star before a deep space base.

More consistent naquium asteroid field placement.

Update all icons to 64x64.

Structure graphics fixes

Some buildings have not enough or too many pipe outputs in the main graphic.

- Telescopes
- The gear in the material fabricator is jumping when it's active

Add a key to stop drifting for jetpack/spacewalking.

Planets with hostile robots.

Flying aliens. Space aliens. (Part of a new mod but integrated to SE).

Add some special turrets. (Rocket turret model posted on Patreon)

Vehicles that work in space (a little spaceship).

PvP Multiplayer update

- You can already do PvP with a test command that creates a new force with a new homeworld: `/c remote.call("space-exploration", "setup_multiplayer_test", { force_name = "player-2", players = {game.player}, match_nauvis_seed = false})`
- The update is expected to have a lobby with team selection. It may all be custom code or integration with an existing multiplayer mod.

Trees update

Tree restrictions to better keep to the planet themes (currently tiles can be controlled but not trees). Need to add color tags to all AB trees. E.g. This planet only has red trees.

Add images to the tree variations.

Give the tree variations names.

Achievements:

The current list of achievements being worked on is 120. That number is expected to grow as more will be added for discovery of certain secrets, or victory over specific bosses.

Clones update

Part of bio science, make clones that you can deploy to different bases. You can then switch characters to have a physical presence in multiple places instead of just satellite mode.

New structure graphics update

Some of the current facility graphics are recolours of a base model. The plan is to have unique graphics for all machine types and only use recolors for tiers.

Remnants update

- Add remnant graphics for all entities.
- Add appropriate explosion particles for all entities.

- Add appropriate collision particles to all entities.

Fusion & Waterworlds update

Add big fusion reactor.

Add Waterworlds, only a few islands, all the rest is water, primary resource is heavy water.

Add personal antimatter reactor equipment.

Spaceship Fusion rocket engine.

New Space resource: Helium 3 in space - used for fusion, variant 3.

Add personal hot-swap battery power equipment.

Less lumpy asteroid tileset.

Robot storage / deployer structure.

Space robots that don't have fan / propellor graphics?

Space themed train.

Space micro meteors (fly in from edges of the map, can be defended against with normal laser turrets).

Large doomsday meteors. Get early warning. Either let them land for a large resource patch, or try to destroy them with meteor defence. Maybe you need a meteor defence rocket to deal with things of this size?

Hostile Planets update

Planet climate & challenges

- Tornados: the plan for tornados is for them to be restricted to certain corridors. So the defence is... just don't build there. Rails won't be damaged so it will incentivise more of a railworld / towns style.
- Electrical Storms: Lightning rods protect a radius and can generate power. Must have accumulator capacity or the rod may be destroyed.
- Dust Storms / sandstorms
- Flooding: Water tiles expand and contract. Landfill is only temporary. Walls can help?
- Drought: Planet just has no water. (Done)
- Volcanos: Liquid lava cannot be landfilled or built on. You can get free heat and stone from it.

- Blizzards (slows things, effectively a beacon with heavy speed penalty, makes speed beacons more effective) effect is a bit light frostpunk, need a heater to work.
 - Belts, bots, inserters freeze if not within range of a heat tower
- Nuclear winter: Radiation damage. reduced solar, radiation storms
- Oxygen rich: things explode on death, can cause cascade fires (oil pipes, etc).
- Some sort of natural structures that act like beacons and you need to build around them.

Planet-type specific resources and enemies. Fire spitters on lava planet, etc.

Ongoing

Add more ruins, abandoned spaceships, and other secrets.

Balance updates.

Mod compatibility.

Planned in a vague sense

A seismic device to remove all cliffs.

Something that requires you to collect all of the core fragment types.

Back shelf

Stuff that is not in the current plan but is being considered.

Ringworlds

Alternate spaceship start: The game begins in the spaceship, where the player chooses the difficulty and the planet on which he will land, but when you land on planet - you crash.

Add resource from killing spawners?

Idea/suggestion: a black hole reactor. Contains a black hole of a weight of an asteroid, that radiates Hawking radiation, and fed by other matter. The energy production rate scales as $(\text{mass of the black hole})^{-2}$, so the lighter the black hole - the more energy is produced, making the reactor inherently unstable, and prone to explosion.

If one wants to increase energy production, they have to stop feeding the black hole to let its mass decrease, and then they have to stabilize it to prevent from evaporating further on the other hand, if the player feeds the black hole too much, it will become too heavy and will generate almost no energy. Turning any resource into energy is also a nice mechanic.

Improved AbandonedRuins support

Angels support.

Asteroid thruster. Moves an asteroid to a different zone.

Add recipe for solid rocket fuel to liquid that uses biosludge and is more efficient.

Add recipe for liquid rocket fuel from methane ice.

AAI Industry:

- Add burner leech

- Add Inserter sidedness

- Move in Pulveriser, add alternate iron and copper processing chain with ingots.

- Move in medpack (maybe tier 4+ requires SE).

- Move in Recycling facility.

- Move in scrap & contaminated scrap. Add more scrapping recipes (wooden poles, etc).

Move AAI early game tech limitations to 1 or 2 early-game focussed mods.

- Wood and stone.

- Coal and steam.