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Abstract 1: Lunar Radio Telescope concept

A Radio Telescope on the dark side of the Moon would aid in the search for other extraterrestrial life in Galaxy or Universe. This construction would take multiple launches to position all the pieces for it in the correct locations. I got the Idea from Paul Hunt from Hunt Utilities Group LLC located in Pine River, Minnesota. HUG for short has done research on reusable energy such as solar panels both for electricity, water heating, and geothermal storage of the suns heat below the ground of buildings. They also study sustainable energy efficient housing, organic gardening, hydroponics with grey water systems, and were a cold fusion proving ground trying to prove others designs for Nikole to Copper fusion. Paul proposed that we use a 1000 mile spread of the moons surface on the dark side, but I believe a large crater like the one in South America or China would also work. Just instead being built onto the moons surface to aid the current infrastructure of satellites such as James Web, Hubble, etc. This would also aid the ground radio telescopes with less interference from our Earth base satellites that hog the night sky with radio signals. Because Artemis is already going to stay on the moon currently, this could be a later supplemental mission project with autonomous systems for minimal human factor repairs or set up after the initial setup time and cost. All feed back on this subject would be great. Why would this technology benefit humanity as a hole species? What would we discover in the far reaches of space, Space bearing civilizations, or more emptiness? Could this be a multi country mission or project to split the enormous costs that would be associated with it?

Abstract 2: Asteroid mining for deep space past Mars

The other subject would be asteroid mining and manufacturing to be 80 to 95% robotic exploration and operations due to humans limit to just over 1 year in space before health effects are not reversed easily. So, humans would be the repair and operation managers. If NASA/SpaceX and other companies can get to Mars and make small colonies that would speed up the Space Economy process. Mars would be a great Gravity break from space for deep space missions. To accomplish this we would need to build bigger more complex assembled in space ships for transit between Earth and Mars and maybe more cargo ships to transit between Mars and the Asteroid belt. These are vehicle that would ne built if we plan on colonizing Mar or the Moons of Jupiter or Saturn in the close or far future. Either way we as humans have huge hurdles in technology and infrastructure to cover before Asteroid mining would even be possible. The robots would mine the Asteroid such as Psyche(current study mission being preformed by NASA), Ceres, Vesta, Eros, Juno and much more. I believe the Space economy might have a somewhat barter to survive or material based economy with another finance economy to keep track of sales between companies or countries. The survival part will be water, food, oxygen, and materials for manufacturing products in microgravity environments. Mars could be a crucial role in Astronaut training, missions, and health recovery for the lighter gravity well that Mars's environment has to offer. What type of infrastructure would this mining style require? What type

of Technology needs to be developed in order to pursue these ambitious dreams? What type of ships or settles may need to be in place to help assist these missions?