Introduction As part of the Artemis program, NASA intends to have boots back on the moon by 2024, with help from the Gateway station in Lunar orbit. However, questions persist about the physiological consequences of prolonged exposure to deep space radiation on the crew. Furthermore, there is currently no cislunar infrastructure in place to aid with rescue missions in the event of catastrophe on the lunar surface, nor is there a reliable logistics channel and communications link to the Moon. BuzzCraft is an alternative proposal to the Gateway station that seeks to address both of these issues. BuzzCraft will evolve over the course of 4 stages between 2022 and 2024. The first stage is a Dragon and Orion module docked together in Low Earth orbit containing a plant and animal laboratory (PAL). PAL’s initial phase in LEO within Earth’s magnetosphere will serve as a control for study of biological tissue taken from plants and animals in the capsule. After this initial phase, PAL will move into phase 2: Geostationary orbit where it will be beyond the protection of Earth’s magnetosphere and the biological tissue will be exposed to deep space radiation for prolonged periods of time. PAL will be relatively accessible in GSO for rack changeouts and collecting tissue samples. Phase 3: PAL will move back into LEO where other modules will be clustered with help from international partners. After the modular assembly of the constituent modules into BuzzCraft, Buzzcraft will be placed into a free-return cislunar orbit. PAL will be attached to BuzzCraft to continue the biological studies, and other modules will carry cargo, landers, and people into cislunar orbit. Once in this orbit, BuzzCraft will be a critical piece of cislunar infrastructure and will aid the Artemis mission in carrying payloads to the moon. This architecture would recast the profile and the need for the reference Gateway mission altogether. BuzzCraft architecture proposes existing commercial space technology, both human rated and non-human rated, including SpaceX’s Falcon 9 and Dragon capsule, and Falcon Heavy launcher, as well as Boeing’s Unity connection module. Upgraded Apollo hardware can drastically shorten Artemis lunar return manifest schedule. As a result, the first phase of BuzzCraft could be launched as soon as 2022. Further modules can be supplied by international partners such as the ESA, JAXA, and CSA and RosCosmos. Mission-integration in LEO enhances global cooperation and all spacefaring and aspiring nations.