

Space Application BoT

Dr G K Venkatesh, Saran Karky S, Aaron Vineeth A

Department of Electronics and Communication

C Byre Gowda Institute of Technology, Kolar

gkvlshiv@gmail.com, karkysaran857@gmail.com, maryann563101@gmail.com

Abstract: *This project introduces a novel space application robot controlled via the “VC-02 kit AI Thinker board”, leveraging advanced voice command technology. Designed for extraterrestrial environments^[1], the robot combines voice-driven control with autonomous navigation to execute tasks in unstructured terrains with precision. Its AI-enhanced functionalities allow real-time adaptability and seamless task management, including soil analysis, resource extraction, habitat construction, and equipment maintenance. The integration of voice control enhances user interaction, simplifies operational complexity, and facilitates remote guidance, even under extreme conditions. By employing the VC-02 kit AI Thinker board, this work demonstrates the potential of voice-controlled robotics in advancing autonomous systems for space exploration and the establishment of sustainable off-world habitats*

Keywords: VC-02 kit

