**CHANDRAYAAN 3 EXPLORING LUNAR TERRAIN THROUGH SIMULATION**

Chandrayaan-3 marks the next significant leap in India's ambitious space exploration program, following the successes of its predecessors. This mission, spearheaded by the Indian Space Research Organisation (ISRO), aims to further unlock the mysteries of the Moon's surface, leveraging advanced technologies and scientific instruments. The primary objective of Chandrayaan-3 is to build upon the discoveries and data obtained from Chandrayaan-1 and Chandrayaan-2, enhancing our understanding of the lunar terrain, mineral composition, and surface characteristics. The mission will focus on targeted exploration, utilizing precise landing techniques to investigate specific regions of interest identified in previous missions. Key components of Chandrayaan-3 include a lunar lander, rover, and orbiter, each equipped with state-of-the-art instruments designed to collect invaluable data about the Moon's environment. These instruments will enable comprehensive analysis of lunar soil, rocks, and topography, shedding light on the geological evolution and potential resources of the lunar surface.Furthermore, Chandrayaan-3 underscores India's commitment to international collaboration, fostering partnerships with other spacefaring nations to exchange expertise, resources, and scientific findings. Such collaboration enhances the global scientific community's collective knowledge and accelerates advancements in space exploration. In addition to its scientific objectives, Chandrayaan-3 holds symbolic significance for India, showcasing the nation's growing prowess in space technology and its determination to explore new frontiers.

**HARDWARE COMPONENTS:**

|  |  |  |
| --- | --- | --- |
| S NO | COMPONENTS | QUANTITY |
| 1 | 4ch remote control transmitter receiver circuit 27/40mhz | 1 |
| 2 | Soldering Iron Kit | 2 |
| 3 | Flat Cylinder DC Motor | 2 |
| 4 | DC Motor | 1 |
| 5 | 9V Battery | 2 |
| 6 | LED | 3 |
| 7 | Li-ion Battery | 1 |

**BLOCK DIAGRAM:**

