

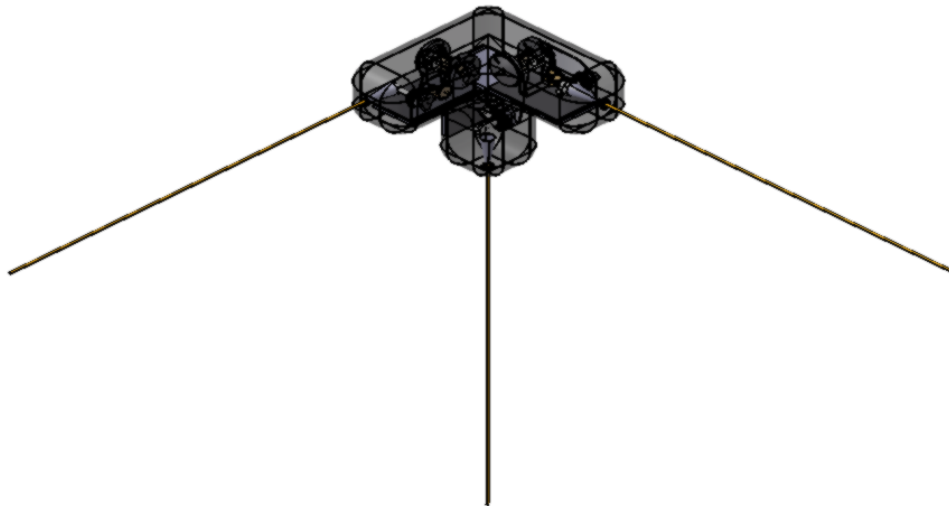
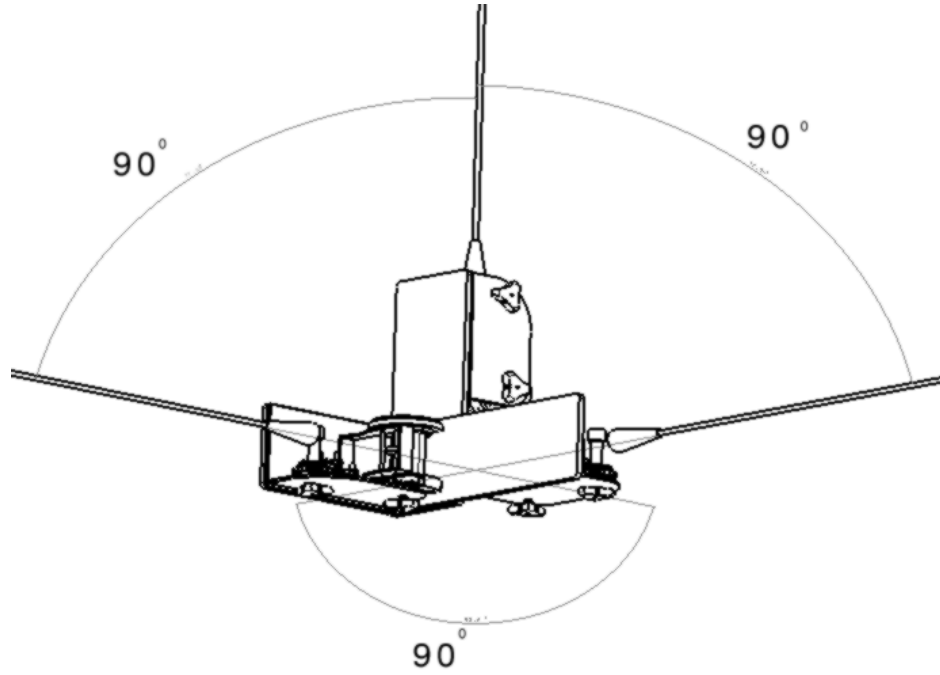
Brain Chamber Satellite Boom Deployment Mechanism, designed as specified and required for Electronics department of University of Pune.

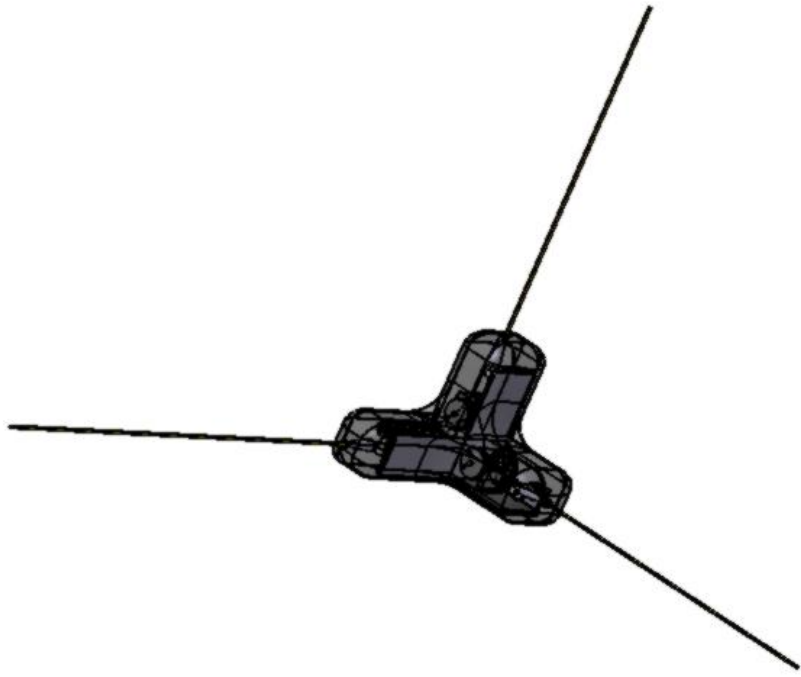
A) Specification

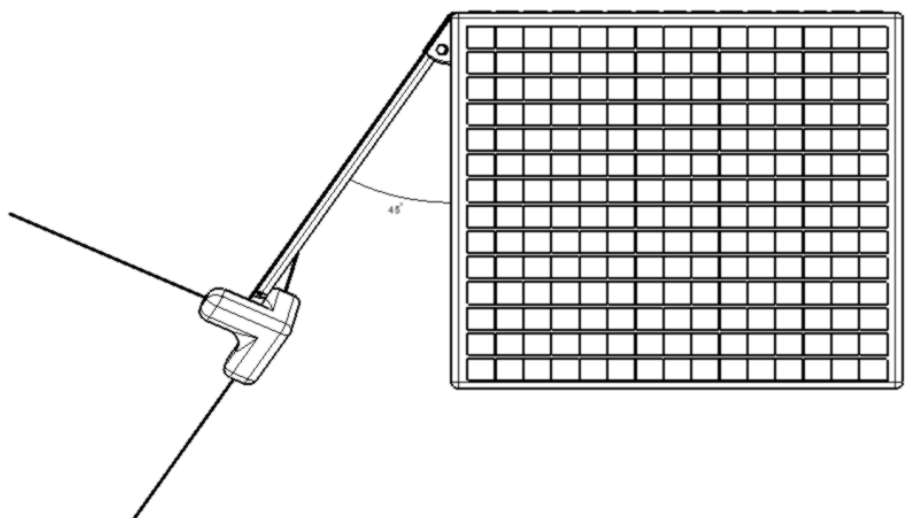
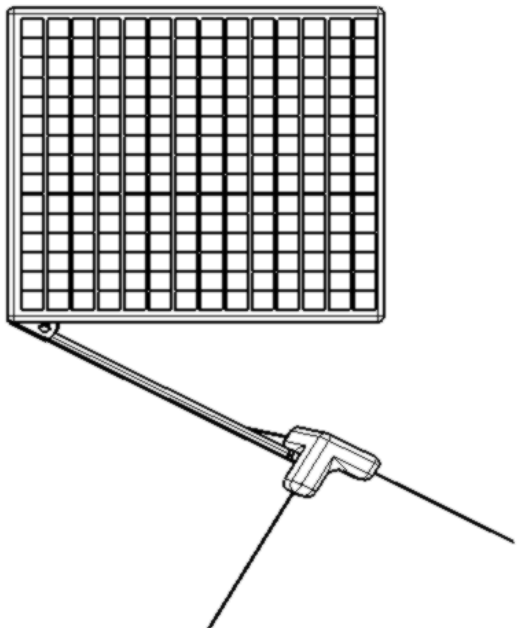
- 1) Weight of satellite boom will be 1500gm (500gm x 3)
- 2) Power supply will not be needed.
- 3) Three antennas are of 90° with respect to each other.
- 4) The deployment is 2m.
- 5) The vibration factor remains below 1.5
- 6) The stress, structural and tensile stress will remain maximum up to 8N/mm^2
- 7) Impact will not exceed more than 0.55 NS
- 8) Momentum will be conserved in space application if it acts as a closed system in space. Hence in designing for engineering model it will be kept as minimum as possible approx up to 5.5×10^{-3} ns.
- 9) Point of connection of three antennas will be concentric at the end.
- 10) System will be 0% failure.

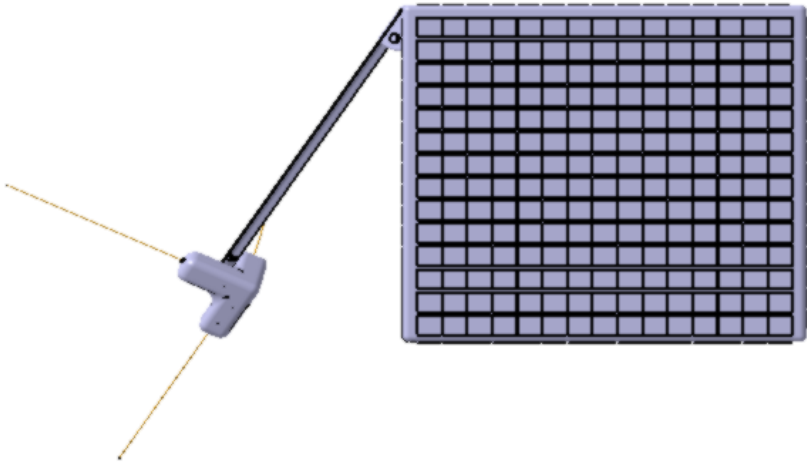
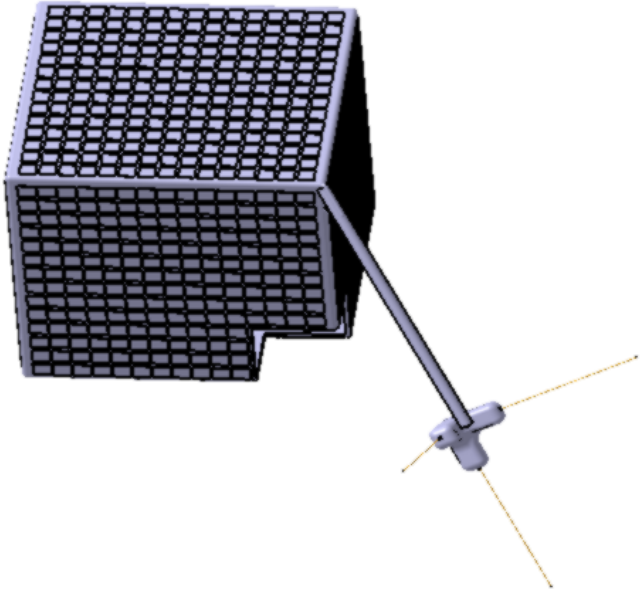
1) Type

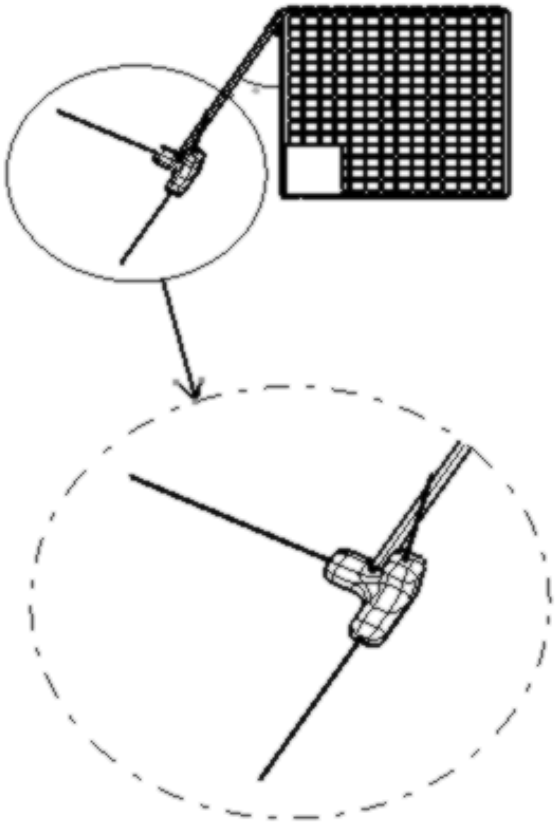
Antennas mechanism junction is connected to single support rod and will be taken out as per requirement.











2) Type

Antennas mechanism junction is mounted on the body of satellite and each antenna is 45° to the main frame of satellite structure.

