IRNSS-1G Spacecraft Paper Model

(Scale - 1:25)

DO IT YOURSELF

Assembly Procedure:
1. Please take print on 300 gsm thick paper sheets
2. Cut along the outline of each part to get 14 parts + body of the Satellite
3. Refer the enclosed assembly procedure chart
4. Fold the individual elements along the dotted lines using the scale as guide
5. Use good glue on the indicated areas to complete the individual parts and stick on body of the satellite at respective locations.

Instructions:
Materials needed:
1. Scissors
2. Scale
3. Glue

Fuel Tank
Dual Helix Array Antenna
Thruster
C Band Rx
C Band Tx
Mag. Torquer
LAM
LAM Shield
Glue
PAA
Tx

Glue
Solar Panels

Glue on back side & paste it to main body of the satellite on area marked *
Dual Band Helical Array Antenna

Dual Band Helical Array Antenna Base

Glue backside tip & paste to the center of the circle

Glue white portion

Interface Ring
IRNSS - 1G

Salient Features:

- Orbit: Geosynchronous with 5 deg. inclination
- Lift-Off Mass: 1430 kg
- Dry Mass: 610 kg
- Physical Dimns.: 1.8Mx1.62Mx1.74M
- Power: Two Solar arrays generating 1660 W, Ono Lithium-ion battery of 90 AH
- Propulsion: 440N LAM, Twelve 22N Thrusters
- Control System: Zero momentum system, orientation input from sun & Star sensors, Reaction wheels, Magnetic Torquers & 22N Thrusters as actuators
- Mission life: >10 years
- Launch date: 28th April 2016
- Launcher: PSLV C33

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Stand Base
Assembly Procedure Chart

- Fold all flaps as per the diagram
- Insert the tuck in flap inside as per diagram to finish body of the Satellite
- Fix both the Solar panels on the area marked on the body of the Satellite
- *Make sure solar cells are facing in front as per diagram*

- Roll to form C Band Rx Horn
- Roll to form LAM
- Roll to form LAM Shield
- LAM & Shield Assembly
- Glue backside tip & paste to the center of this circle
- Glue white portion
- Finished Dual Band Helical Array Antenna

- Roll to form upright cylinder to finish interface ring
- Fold all flaps & paste the flaps as shown in the diagram

- Finished Stand
- Apply Glue & fix Satellite
- Finished Base
- Glue

- Stick or pad of the stand to Satellite