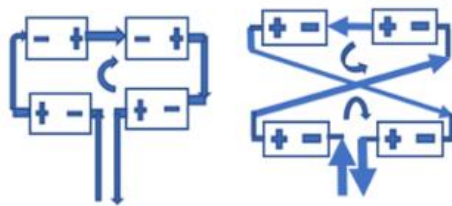
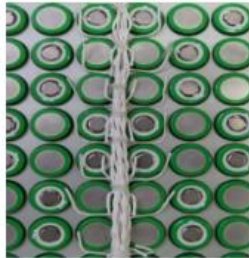


Magnetically clean Battery

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed Magnetically clean Battery for space exploration missions.



Non-cross & Cross strapped harness



Salient Features

- ❖ Current loops are minimized/avoided by cross strapping of harnesses.
- ❖ No impact on the standard battery design using COTS cells.
- ❖ No relative motion of harness bunch and safety precaution is incorporated.
- ❖ Magnetic flux density of 4 order lesser is achieved as against the standard battery design.

Description/Specifications

- ✦ Sensitive payloads for space exploration demands minimal magnetic flux emitting from the spacecraft itself. As batteries are one of the major source of magnetic field due to current loops, envisages the need of reduction in magnetic flux/field.
- ✦ The magnetic field from COTS cells battery was reduced by closely placing the positive and negative current carrying members. Further the current loops are avoided by cross strapping or twisting the positive and negative wires.
- ✦ Safety precaution, relative motion of harness bunch, fabrication process and risk assessment were addressed.
- ✦ The magnetic flux from battery was evaluated in magnetic measurement system and compared with the standard design.

URSC-ISRO offers to transfer this technology Magnetically Clean battery developed by URSC to industries in India with adequate experience and facilities. To manufacture, industries must have the knowledge of Lithium ion batteries, assembly, testing & clean room facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

Technology Transfer & Industry Coordination Division (TTID),

Programme Planning and Evaluation Group (PPEG),

📍 U R Rao Satellite Centre (URSC), ISRO, HAL Airport Road,
Vimanapura Post, Bangalore – 560 017.

✉ Email-id: tt-icd@ursc.gov.in

🌐 <https://www.ursc.gov.in/industry/index.jsp>