



Technology Infusion using ISS

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Objective:

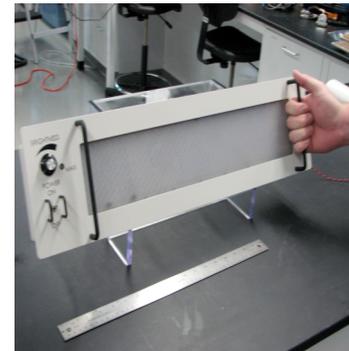
- ◆ For critical spacecraft systems, evaluate & process existing NASA / commercial technology products into space flight candidates i.e. take them to TRL 7.
 - Solid State Lighting Module (*Crew Lighting*)
 - High MTBF LED lighting using low VDC sys.
 - Forward Osmosis Bag (*Emergency Water*)
 - Water recovery system that is 2 orders of magnitude less weight
 - UV LED Potable Water Purification (*Water Stowage*)
 - Purification without Iodine or Ag

Relevance/Impact:

- ◆ Identify technologies which will lower CEV's overall; mass, power use, crew time, or use of consumables while increasing safety and reliability

Approach:

- ◆ Work with NASA Projects like ISS-R, ELS as well as commercial developers to identify bench tested (TRL < 2 - 4) prototypes suitable for scaling into flight products



SSLM



FOB

Schedule

Key Milestones/Deliverables	Date
Solid State Lighting Module (SSLM) long-term burn in testing	N/A
SSLM launch processing & on-orbit support. Planned ISS Ops – Incr. 16 / April'08 Launch - TBD	N/A
Forward Osmosis Bag (FOB) bench top testing completed and SDTO package presented	1/08
UV LED Potable Water Purification (ULPWP) ground protocol development completed	1/08
ULPWP bench top testing completed and SDTO package presented	5/08