

Remotely Controlled Mixers for Light Microscopy Module (LMM) Colloid Samples

Automation enables samples to be processed quickly and efficiently

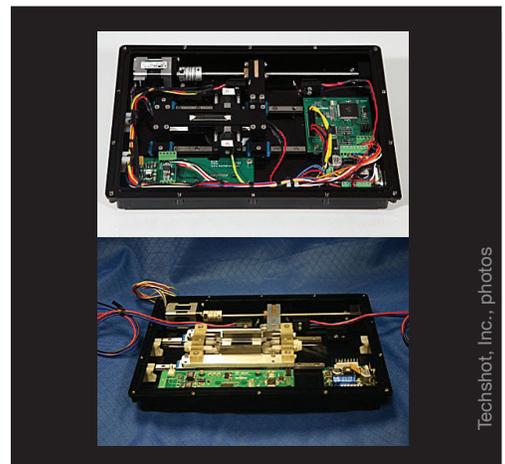
Developed by NASA Glenn Research Center, the LMM aboard the International Space Station (ISS) is enabling multiple biomedical science experiments. Techshot, Inc., has developed a series of colloid specialty cell systems (C-SPECS) for use in the colloid science experiment module on the LMM. These low-volume mixing devices will enable uniform particle density and remotely controlled repetition of LMM colloid experiments. By automating the experiment process, C-SPECS allow colloid samples to be processed more quickly. In addition, C-SPECS will minimize the time the crew will need to spend on colloid experiments as well as eliminate the need for multiple and costly colloid samples, which are expended after a single examination.

This high-throughput capability will lead to more efficient and productive use of the LMM. As commercial launch vehicles begin routine visits to the ISS, C-SPECS could become a significant means to process larger quantities of high-value materials for commercial customers.

Applications

NASA and Commercial

- ▶ On-orbit analysis of colloid samples
- ▶ On-orbit analysis of macromolecular samples



Phase II Objectives

- ▶ Finalize design requirements
- ▶ Design and fabricate flight-like hardware for C-SPECS
- ▶ Conduct C-SPECS performance tests

Benefits

- ▶ Automates colloid biomedical experiments aboard the ISS
- ▶ Allows colloid samples to be processed more quickly
- ▶ Offers potential for better understanding of pharmacological processes

Firm Contact

Techshot, Inc.
Michael A. (Andy) Kurk
akurk@techshot.com
7200 Highway 150
Greenville, IN 47124-9515
Phone: 812-923-9591 ext. 224

Proposal Number: 11-2 03.02-9621