

TECHNICAL SERVICES NEWS

Selective Laser Sintering at Technical Services

Technical Services, with support from the Government of Newfoundland and Labrador, has acquired a Selective Laser Sintering (SLS) machine, a Sinterstation sPro 60HD by 3D Systems. This is a rapid prototyping technology that is capable of producing plastic parts from a three-dimensional CAD model. Selective Laser Sintering is one of the leading technologies for rapid prototyping and also allows the capability for direct digital manufacturing.

Rapid Prototyping (RP) technologies were initially commercialized in the late 1980s and used to create 3-D replicas of a part or product. These technologies have steadily advanced and today some are capable of direct digital manufacturing where the completed part is fully functional. In fact, many organizations are now using SLS to avoid tooling completely and to produce small quantities of parts for end use.

Not only is this SLS machine one of the most productive RP process available, it also offers the ability to run multiple materials including: nylon, glass-filled nylon, flex elastomer, or wax investment casting masters for die-cast parts.

Khoshrooz Kazemi, a graduate student in the Faculty of Engineering, holds a scale model of a composting unit that is currently under development. SLS offered an efficient method to create these parts.



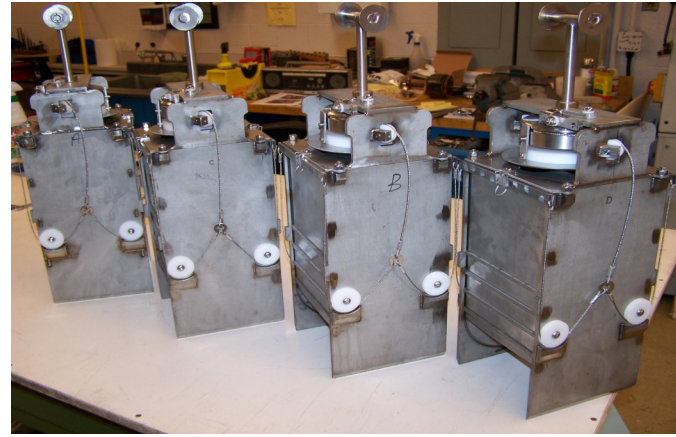
Sheldon Cribb - Apple Support

Sheldon Cribb, our apple certified technologist, joined Technical Services in 2005 and since that time has been working with our Computers and Data Communications group. He earned his electronics engineering technology diploma from the College of the North Atlantic and before joining our team worked in oil and gas, telecom, manufacturing and computer repair. Sheldon has extensive experience with repairing computers and related peripherals and has also worked with our networking team. In recent years he has taken the lead in repairing Apple desktop, portable computers and related peripherals and is certified by Apple to perform warranty repairs on this equipment.

Being from Head of Bay d'Espoir on the province's South Coast, Sheldon has developed a love of the outdoors and he shares this passion with his wife and 4-year-old son. He enjoys hiking and camping with his family and is becoming an accomplished photographer. You can find some of Sheldon's work on Google Earth, just zoom on Swift Current or The Spout.

Sediment Corers for the OSC

These sediment corers are specifically designed to be used by a mechanical arm on a submersible or a remotely operated vehicle to collect quantitative sediment samples from the seafloor up to thousands of metres below the ocean's surface. By rotating the t-handle at the top of the device, the mechanical arm forces metal doors to slide down and seal the sample into the box for transport to the surface ship. For studies of ocean life or sediment geochemistry it is an invaluable tool. These corers will be used primarily by the Canadian Scientific Submersible Facility's remotely operated vehicle ROPOS.



Glass Pitcher Plant for our Governor General

His Excellency, the Right Honourable David Johnston, Governor General of Canada, accepts a gift on behalf of Student Affairs and Services at an event held in June to celebrate student innovation. The artist of the hand-sculpted glass pitcher plant, Brian Power, was at the event to present the piece.

Fume Hood Certification

Fume hoods are a critical component of the life safety system in many labs and Technical Services has been certifying them to the ASHRAE standard since 2009. This certification ensures that these devices are performing as intended. Two technologists, Bill Verge and Fred Walsh, received training at the Exposure Control Technologies Training Facility in North Carolina. Both have tested the majority of fume hoods on Memorial's main campus, the Marine Institute, the Ocean Sciences Centre, the Grenfell Campus and the Mt. Scio Pilot Plant area.

Refrigeration Servicing by Geoff Dawson

Geoff Dawson was hired by Memorial in 2010 to fill the position of Refrigeration Supervisor for Technical Services. Hailing from Conception Bay North, he completed his studies in Refrigeration Plant Operation at the Fisheries College in 1980, and relies every day on the experience and training he has acquired during his years in the trade. Geoff's background is diverse; he obtained his Red Seal Journeyman status in the refrigeration trade while working as a HVAC/R Technician with Carmichael Engineering.



Comments or feedback

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025-076-011-11-200

Geoff is responsible for the scheduling of maintenance and repairs to equipment. He has also set up a preventative maintenance program for much of the refrigeration equipment on site. Since coming to Memorial, he has obtained a certificate in the Supervisory Skills Development Program. Geoff, along with his co-workers, ensures that the refrigeration equipment in our many labs continue to function effectively.