

Micromem Technologies Inc. Issues Letter to Shareholders

Letter Describes Manufacturing Supply Agreements, Product Developments, Field Testing Of Client Deliverables, Magnetic Sensor Use In Medical Diagnosis, And More

TORONTO/NEW YORK, September 18, 2009—[Micromem Technologies Inc.](http://www.micromeminc.com) (Micromem) (OTC BB: MMTIF, CNSX: MRM), and its wholly owned subsidiary, Micromem Applied Sensor Technologies, Inc. (MASTInc), has issued a letter to its shareholders. To view the shareholder letter in its entirety, please follow the link to the company's website: <http://www.micromeminc.com/shareholderletter>.

In the letter, Micromem President and CEO Joseph Fuda updates shareholders on the company's continued efforts to increase shareholder value related to its key initiatives, product developments, and field testing of client product deliverables and magnetic sensors in medical diagnosis, which include:

- Significant progress in the last quarter towards revenue generation, with the fulfillment of in-house contracts continuing as scheduled.
- Sales proposal pipeline grown to over \$317 million.
- Wholly owned subsidiary MASTInc. has to date executed two manufacturing supply agreements that have a combined potential for approximately \$190 million over three-to-five years.
- Memory product now complete through the Global Communication Semiconductor (GCS) and BAE Systems foundries; memory now fully packaged in arrays and being tested and evaluated against standard and routine memory tests.
- Silicon Turnkey Solutions, Inc., a solution provider in the area of specialty assembly, electrical test, qualification, reliability and product screening, has completed all Life Cycle Testing of Micromem's product and we will be publishing a completed product data sheet in the fall.
- Partnership with Nano Opto, a precision optics nanofabrication company based in Somerset, New Jersey, to create a concentrator for the company's hall sensor to provide between one hundred and two hundred times improvement in sensitivity.
- Micromem continues to work closely with Nth Degree of Arizona in completing a printable hall sensor via its process.

- Oil sensors have been shipped at the end of August for field trials in two important areas, military automotive in line analysis of oil particulates and cooking oil degradation in commercial institutions.
- A low frequency radio designed for electromagnetic surveys of the earth as part of oil and mineral exploration is being readied for field trial in first quarter 2010; mining core analysis sensor is also being prepared for field trials in late 2009.
- Company is on schedule to deliver the first batch of evaluation circuits to Unotron, a leader in the design and manufacturing of washable keyboards, in late September.
- Work has begun on the integration of Micromem's sensor into Life Medical product line (LMTI). LMTI is dedicated to educating and providing life-enhancing, innovative medical products to the public in an ongoing effort to strive towards a successful outcome in the fight against breast cancer and other life-threatening illnesses.
- With the use of magnetic sensors in medical diagnosis on the rise, Micromem plans to produce a series of products that are focused initially on early detection of breast cancer.
- Carol Fitzgerald, CEO of Life Medical with over twenty-five years of marketing, operations, and executive management experience, has been appointed to the Advisory Committee of MASTInc.

“Viewed from a scientific and financial perspective, the past few months have been an auspicious one in our corporate history,” says Mr. Fuda. “Micromem Technologies Inc. remains committed to its vision of partnering with companies for the commercialization of ‘killer apps’ in the realms of biometrics, medical devices, defense and security, and natural resource exploration. We sincerely thank our partners, staff, and valued shareholders for their continued support.”

About Micromem and MASTInc

MASTInc is a wholly owned U.S.-based subsidiary of Micromem Technologies Inc., a publicly traded (OTC BB: MMTIF, CNSX: MRM) company. MASTInc responsibly analyzes the specific industry sectors to create intelligent game-changing applications that address unmet market needs. By leveraging its expertise and experience with sophisticated magnetic sensor applications, MASTInc successfully powers the development and implementation of innovative solutions for healthcare/biomedical, natural resource exploration, government, information technology, manufacturing, and other industries. Visit www.micromeminc.com www.mastinc.com.

Safe Harbor Statement

This press release contains forward-looking statements. Such forward-looking statements are subject to a number of risks, assumptions and uncertainties that could cause the

Company's actual results to differ materially from those projected in such forward-looking statements. In particular, factors that could cause actual results to differ materially from those in forward looking statements include: our inability to obtain additional financing on acceptable terms; risk that our products and services will not gain widespread market acceptance; continued consumer adoption of digital technology; inability to compete with others who provide comparable products; the failure of our technology; the infringement of our technology with proprietary rights of third parties; inability to respond to consumer and technological demands; inability to replace significant customers; seasonal nature of our business; and other risks detailed in our filings with the Securities and Exchange Commission. Forward-looking statements speak only as of the date made and are not guarantees of future performance. We undertake no obligation to publicly update or revise any forward-looking statements. When used in this document, the words "believe," "expect," "anticipate," "estimate," "project," "plan," "should," "intend," "may," "will," "would," "potential," and similar expressions may be used to identify forward-looking statements.

The CNSX or any other securities regulatory authority has not reviewed] and does not accept responsibility for the adequacy or accuracy of this press release that has been prepared by management.

Listing: NASD OTC-Bulletin Board - Symbol: MMTIF
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