



FOR IMMEDIATE RELEASE

Micromem Technologies Receives Initial US\$30 Million Purchase Order

Micromem Enters Breast Cancer Detection Market

TORONTO and NEW YORK, Sept. 28, 2009 / Micromem Technologies Inc. ([Micromem](#)) (OTC BB: MMTIF, CNSX: MRM), and its wholly owned subsidiary, Micromem Applied Sensor Technologies, Inc. ([MASTInc](#)), has received an initial purchase order for its sensors from Life Medical Technologies, Inc. (LMTI), which upon completion, will total US\$30 million. Micromem anticipates delivery to begin in 2009 with the bulk expected in 2010, in accordance with fulfilling LMTI client orders.

Micromem's sensors will be used for LMTI's product to enhance breast cancer detection. Work has already begun and routine manufacturing will commence as early as applicable regulatory approvals permit. The initial terms of the purchase order are a request for up to 10 million units and MASTInc to complete a design, test prototype, and deliver a device approved for commercial use within 30 days.

It is anticipated that Micromem's sensors will be included in two components of the device, the wearable portion and the handheld reading component. LMTI and Micromem are working to produce a series of products to serve the breast cancer diagnostic market and anticipate the launch of future generations of design.

"After years of research and development it is gratifying to receive our first of many purchase orders and represents a significant milestone for the company and its shareholders in the very relevant field of breast cancer detection," said Joseph Fuda, Chief Executive Officer of Micromem Technologies Inc.

For more news and information on Micromem Technologies Inc. please visit www.IRGnews.com/coi/MMTIF where you can find the CEO's video, a fact sheet on the company, investor presentations, and more.

About Life Medical Technologies Inc.

Life Medical, a developmental stage company, is dedicated to educating and providing life-enhancing, innovative medical products to the public through partnerships with non-profit organizations, corporations, academia, the government, and individuals in an ongoing effort to strive towards a successful outcome in the fight against breast cancer and other life-threatening illnesses. Life Medical is dedicated to providing innovative health care products and education worldwide that empowers individuals to have greater control over their healthcare.

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.

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