DEPARTMENT OF MECHANICAL ENGINEERING

Name of SOP	3M02 P3 CNC Machining Laboratory ???
Effective Date	April 7, 2005 Rev. January 21, 2008
Author	Joe Verhaeghe
Reason for SOP	Possibility of eye injury, cuts
Approved by (supervisor)	Ron Lodewyks
Date reviewed by (JHSC)	February 13, 2008

Definitions

Terms	
acronyms	RMM – Risk Management Manual JHSC - Joint Health and Safety Committee EOHSS - Environmental Occupational Health & Safety Service

Requirements

Applicable OHSA regulations and / or codes of practice.

1. OHSA code.
2. McMaster University Risk Management Policies

Training and competency.

1. Training provided by
2. Competency is shown by the individual after training

Description of the Task

Location and time of work	JHE206
Individuals and skills required	Graduate Students
Equipment and supplies required	Custom CNC machine using dremel tool
Personal protective equipment required	Eye Protection

Sequential steps to complete the work safely.

Calibration Procedure:

1. Switch on computer, login, run “SeeNC” program
2. Switch on main and spindle power
3. Move the tool to the center of the work piece using: CNC -> Calibrate (X and Y, stop the motors using CNC -> Calibrate -> Stop)
4. Feed the tool downwards and stop when the tool touch the work piece using: CNC -> Calibrate (Z)
5. Move the tool upwards by 5mm using: CNC -> Gcode -> Zaxis
6. Reset and exit Gcode mode by: CNC -> Gcode -> Reset and Exit

Experiment Procedure:

1. Switch on computer, login, run “SeeNC” program
2. Select graphics mode by: Mode -> Graphics
3. Run the program by: CNC -> Run (located in E:\ProgramFiles\SeeNC\tp\roselin)
4. Select motor mode by: Mode -> Motor (keep the graphics mode checked)
5. Switch on motor and main power
6. Turn on Spindle
7. Run program by: CNC -> Run (select roselin)

Contingency Plan and Reporting

Accident / injury response

1. Apply first aid as required
2. Notify Mechanical Engineering technical staff immediately

3. For all injuries complete a “Injury/Incident Report” and provide a copy to the Chair and EOHSS 4. In case of critical injury call security (dail 88). 5. In case of critical injury notify EOHSS immediately, ext 24352
Spill response
Equipment shutdowns.

Environmental Responsibility

Waste disposal procedures
Building air quality

References (OHSA/ regulations, EPA and Municipal environmental regulations, McMaster University Program/ Policy, Material Data Sheets (MSDS).

1. RMM Policy #300 Safety Orientation and Training Program 2. RMM Policy #301 Standard Operating Procedure 3. RMM Policy #304 Persons Working Alone 4. RMM Policy #309 Laboratory Safety Manual 5. RMM Policy #310 Eye Protection. 6. RMM Policy #311 Respiratory Protection 7. RMM Policy #309 Laboratory safety manual 8. RMM Policy #403 Noise Control and Hearing Preservation 9. RMM Policy #506 Hazardous Waste Management 10. RMM Policy #1000 Reporting and Investigating Injury, Incidents and Occupational Disease

Distribution

1. Supervisor 2. Trained teaching assistant who is the lab operator 3. Technical Staff of Mechanical Engineering 4. Faculty of Engineering JHSC

Risk Management Manual (RMM)
http://www.workingatmcmaster.ca/link.php?link=Job+Matters%3APolicy-Manual

Environmental and Occupational Health Support Services
http://www.workingatmcmaster.ca/link.php?link=Job%20Matters:EOHSS