

# Magnetorheological (MR) clutch development

Record number : OPR-768

## Overview

### RESEARCH DIRECTION

Jean-Sébastien Plante, Professeur -  
Department of Mechanical Engineering

### INFORMATION

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### ADMINISTRATIVE UNIT(S)

Faculté de génie  
Département de génie mécanique  
Institut interdisciplinaire d'innovation  
technologique (3IT)

### LEVEL(S)

2e cycle  
3e cycle

### LOCATION(S)

3IT - Institut interdisciplinaire d'innovation  
technologique

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## Project Description

### Project

Development of high performance magnetorheological (MR) clutch by metal 3D printing.

The project requires modeling, design, manufacturing and experimental characterization on prototype test benches. The student will also participate in the integration of technology on robotics projects in collaboration with Exonetik ([www.exonetik.com](http://www.exonetik.com)).

### TEAM AND ENVIRONMENT

The student will evolve within the Createk research group ([www.createk.co](http://www.createk.co)), with 9 teachers, 15 professionals, 1 technician and more than 80 students, all passionate about the development of new technologies for tomorrow. For his day to day, the student will work with a team of engineers in the new Exonetik building located in the industrial district of Sherbrooke.

### Ideal candidate

- Bachelor's or master's degree in mechanical engineering or related field
- Be a creative, passionate and action-oriented person
- Have the ability to work in a team

Start in January or May 2023

\$17,500/year (master's), \$21,000/year (doctorate) paid in scholarships  
MITACS Corporate Internships and CoRoM Scholarship Eligibility

Are you interested? Send your resume and transcript to [info@createk.co](mailto:info@createk.co)

**Discipline(s) by  
sector**

**Funding offered**

**Partner(s)**

Sciences naturelles et génie

Yes

Exonetik

\$ 17 500

Génie mécanique

The last update was on 12 March 2024. The University reserves the right to modify its projects without notice.