

<i>Description</i>	
Job Title	Systems Developer
Reports to Title	Project Manager
General Accountability	<p>The Systems Developer is responsible for assisting with the design and test of all MRI-related aspects of the Company’s medical device, including hardware/software development, imaging sequence optimization, device function and system MR-compatibility. In addition, the role will support clinical activities and the associated regulatory submissions.</p> <p>Testing is done offsite, at MRI facilities in the GTA and internationally, with design, data analysis, and reporting conducted at the Company main office. It is anticipated that the majority of time will be spent in the GTA.</p>
Duties and Responsibilities	<ol style="list-style-type: none"> 1. Assist with developing and testing new MRI sequences for various MRI models 2. Optimize the existing MRI sequences to improve sequence performance and clinical workflow 3. Design of hardware, software and methods to support integration of the device with various MRI models 4. Perform verification MRI testing and writing verification reports 5. Characterize equipment magnetic safety 6. Run regular phantom testing with new revisions of equipment/software at MRI site(s) 7. Characterize equipment’s MR compatibility and effect on MRI data (and vice-versa) 8. Investigate new designs in MRI 9. Create, update and execute test procedures 10. Report defects in defect tracking system and verify fixes for defects 11. Required to support Company in planning, development and execution of clinical trials 12. May develop and implement data analytics to assess the technical performance of the clinical trial. 13. May develop computer simulations to investigate changes to the treatment parameters for product development and regulatory submissions. Present results in the context of the wider scientific field. 14. May be called upon to assist in the regulatory submissions of products for Health Canada, FDA, CE, etc. Participate in regulatory strategy discussions. Liaise with physicians on future clinical investigations initiated by the company and external parties.

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Competencies	
Education	University degree in Engineering or Science
Certifications	None
Key Attributes (experience, skills and technical knowledge)	<p>Required:</p> <ul style="list-style-type: none"> ▪ 3 years MRI experience ▪ MRI physics understanding ▪ Windows XP/Vista/7 ▪ MS Office (Word, Excel, PowerPoint), MatLab ▪ Excellent problem solving and troubleshooting skills ▪ Data analysis using standard tools (i.e. Excel, MatLab) ▪ Basic experience with image processing ▪ Ability to thoroughly document and summarize all aspects of testing efforts ▪ Proven ability to write and execute test plans ▪ Detail-oriented ▪ JIRA Atlassian or similar issue tracking system ▪ Interest in applications of engineering in medicine ▪ Able to work well in teams and independently ▪ Excellent verbal and written communication skills ▪ Valid Ontario driver’s license (specifically for traveling to MRI facilities within the great lakes region). ▪ Valid passport for travel to United States and Europe <p>Desirable:</p> <ul style="list-style-type: none"> ▪ MRI console operation ▪ Device-compatibility testing with MRI ▪ MR-sequence development
