



## Puzzle Medical

Devices

### **MONTREAL, Electronic hardware designer, Full-time in-person**

Puzzle Medical specializes in the development of a low-risk percutaneous heart pump for patients with advanced heart failure. Puzzle Medical empowers patients with a treatment option that increases accessibility, improves patient quality of life, and reduces hospitalizations. To date, Puzzle Medical has completed in-vivo preclinical implantations proving implantation, assembly, blood integrity preservation; completed a financing round from international VCs, clinicians, and private investors; built a strong Key Opinion Leaders committee; and received U.S. Food and Drug Administration (FDA) Breakthrough Device Designation.

### **POSITION SUMMARY**

Puzzle Medical is presently seeking a highly motivated *Hardware designer*, with experience in hardware design, electronic compliance testing and manufacturing of medical devices electronic systems. The successful candidate will undertake electrical engineering projects from prototype to production in a lab work environment. The *Electronic designer* will work hands-on cooperatively with a cross-functional development team including members with clinical, business and technical expertise from all areas involved in product development through commercialization.

### **ROLE AND RESPONSIBILITIES**

- Design and develop controller systems for class III medical devices according to product requirements :
  - PCB design
  - Embedded software/firmware development
- Undertake internal and outsourced electrical manufacturing activities :
  - PCB manufacturing
  - Circuit assembly
  - Electronic prototyping
- Execute electrical design verification and validation activities
  - Electrical safety testing
  - Long term running device testing

### **REQUIREMENTS**

- Technical degree or Bachelor's degree in Electrical Engineering or related Electronics discipline
- Deep knowledge of multiple layers PCB design
- Experience working with microcontrollers with one of the common family (ARM, AVR)
- Embedded programming capabilities
- Technical capabilities such as PCB assembly, connector assembly, troubleshooting using basic instrumentation (oscilloscope, multimeter, power supply etc.)
- Strong understanding of electrical design integration with mechanical elements
- French and English verbal and written communication skills

### **ASSETS**

- Knowledge with class III medical devices
- Understanding of design control, quality control and manufacturing in an ISO-13485 environment
- Prior experience with IEC 60601-1/-2 standards (leakage current and safety requirements)
- Experience working with EMI and RFI
- Experience working with ESD (electrostatic discharge) to develop defibrillator protection circuit
- Experience with EMC testing
- Keen on developing new technologies and solving difficult problems

### **WANT TO JOIN US ?**

Send your CV at [careers@puzzlemed.com](mailto:careers@puzzlemed.com) and we'll reach out shortly !