

2022/01/21

Canadian Coast Guard

Attn: ITS Directorate, Electronics and Informatics
25 Huron St, Victoria, BC V8V 4V9

Kevin Corbett
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To the Canadian Coast Guard Electronics and Informatics Branch,

I discovered your career opportunity via Camosun College, regarding a position for an Electronics Technologist Co-op that you have available. I am reaching out as I am looking to improve my skills and gain experience in electronics.

In 2021 I graduated from the Electronics Engineering Technologist diploma program with a 90% average at Okanagan College in Kelowna BC. I have been employed since June 2021 as an Electronics Technician in Victoria BC, where I am responsible for designing and assembling AC power distribution components and control circuitry, creating and maintaining production integration documentation, as well as management and procurement of electrical-related resources. I also have 2 years of previous work experience related to electronics at a cellphone repair shop in Kelowna, where I was responsible for motherboard level diagnostics and repairs, usually involving removal and hand soldering of replacement SMD components under a microscope. In my diploma program I focused on both AC and DC circuit analysis, along with both analog and digital communication systems and protocols. I also have a significant understanding of circuit and PCB design, embedded systems and microcontroller programming, as well as Industrial Internet of Things (IIoT) system design, PLC programming, and HMI design. The area of work related to electrical design is really exciting for me, and I would like to push myself as far as possible in this field.

From the job description, I believe my skill set would fit very well in this position. I have always been a very detail-oriented person, and I take great pride in my work being as precise and efficient as possible. I have become very confident with electronics lab equipment and power tools over the years from both my work experience as well as my education, and I find great enjoyment and satisfaction in learning new skills. I am very comfortable working in any environment, from a team-heavy collaborative setting, to a completely independent one.

I would love the opportunity to learn more and grow my skill set in this position. I believe I would be a strong asset to your team and am happy to meet with you at your convenience to discuss how I can contribute to the Canadian Coast Guard.

Thank you for your consideration,

-Kevin Corbett

KEVIN CORBETT

CONTACT INFO:

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SKILLS & COMPETENCIES:

- Design and assembly of AC power distribution systems
- Intermediate programming in C, C++, Assembly, PLC/Ladder Logic, embedded systems and microcontrollers
- Soldering and assembly of both THT and SMT components, including microsoldering
- IIoT integration of existing systems, HMI design
- Analog and digital circuit analysis
- PCB and schematic design
- Networking/interfacing, analog and digital communications
- General electrical/mechanical diagnostics and repair
- Strong customer service skills, supervisory and teamwork skills
- Ability to handle cash and deal with general public

PROJECT EXPERIENCE:

- **Plankton Bioreactor Control System:** Designed control and power distribution circuitry for both seaweed and microplankton bioreactor systems. Involved creating systems for significant control over sensitive biological variables, requiring in depth collaboration with biologist and mechanical engineering teams to design a system to effectively grow all life stages of macroplankton and microplankton. Significant focus placed on pH sensing and control, temperature control, biosecurity, and redundant failsafe systems in order to ensure stability of the plankton culture growth and safety of operation in hazardous industrial environments.
- **RFID based vehicle immobilizer:** Designed PCB using Altium Designer with focus on minimal physical size and power consumption. Required hand soldering of SMD components of various packages, PIC24F series microcontroller programming, consideration of vehicle safety in the event of device malfunction, and verification of features and design requirements with oscilloscope testing. 86% grade received on capstone project completed as part of diploma program.
- **Arduino based motorcycle ECU:** Implemented open-source engine controller in order to control ignition and fuel mapping for a motorcycle engine swap project. Required hand soldering of THT components on custom Arduino shield, analysis of engine timing components using oscilloscope testing, creation of custom wiring harness, and EFI tuning research to ensure compatibility of all components. Project in progress.

EDUCATION:

May 2021

Electronics Engineering Technologist Diploma (90% overall GPA) - Okanagan College

Apr. 2019

1st year of Business Administration Degree - Okanagan College

EMPLOYMENT EXPERIENCE:

Date	Title	Employer	Responsibilities
Jun. 2021 - Jan. 2023	Electronics Technologist	Industrial Plankton	Electrical assembly design, production integration documentation, management of co-op students and safety during electrical assembly
Jul. 2017 - Sept. 2020	Electronics Repair Technician	Kelowna Cell Repair	Motherboard diagnostics and micro-soldering repairs, general component replacement/repairs, customer service
Apr. 2014 - Dec. 2017	Production Manager	Artix Custom Screenprint	Production timelines, operation of industrial equipment, management of production staff
Dec. 2013 - Jan. 2014	Seasonal Sales Associate	Future Shop	Sales, customer Service, general diagnostics
Sept. 2010 - Present	Technical Support Services	Self-employed	General diagnostics and repairs of electronic and mechanical devices and vehicles

REFERENCES:

Additional references available upon request

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