Job Posting: 176339 - Position: S26 Optimus | Actuator Design Engineering Internship 176339

Co-op Work Term Posted:	2026 - Summer
App Deadline	01/05/2026 09:00 AM
Application Method:	Through UBC Science Co-op
Posting Goes Live:	01/02/2026 11:48 AM
Job Posting Status:	Approved

ORGANIZATION INFORMATION

Organization	Tesla Motors (Canada)
Address Line 1	3000 Hanover St
City	Palo Alto
Postal Code / Zip Code	94304
Province / State	California
Country	United States

JOB POSTING INFORMATION

Placement Term	2026 - Summer
<b> Job Title <b>	S26 Optimus | Actuator Design Engineering Internship 176339
Position Type	Co-op Position
Job Location	Langley, BC
Country	Canada
Duration	4 or 8 months
Salary Currency	CAD
Salary	Salary Not Available, 0 Major List
Salary Range $	70,000 - 85,000 CAD

Job Description

Tesla's Robotics team designs and builds humanoid bi-pedal robots (Tesla Bot) to automate repetitive tasks and wheeled robots for manufacturing and autonomous logistics. The team joins mechanical, electrical, controls, software, and manufacturing engineering disciplines in a highly collaborative team.

During your co-op internship at Tesla, you will be working on groundbreaking manufacturing process technology that goes into gearboxes of the Tesla bot Optimus. You will work with a variety of teams developing the next generation of actuators including prototyping & testing. This includes design of tooling and fixtures that are used in manufacturing processes of geartrains as well as mathematical modelling and simulation of manufacturing processes.

You will be stationed in **Langley, British Columbia**. The internship will give you the possibility to become full time member of the Tesla team.

Duration: 4-8 Months (Preference: Longer the Better, i.e 6+ months)

Expected Compensation: $70,000 - $85,000 CAD/year

The Responsibilities

• Mechanical design of tooling & fixtures that are used in manufacturing processes of gearboxes

•Development of new manufacturing cells in R&D environment

•Development of concept processes to be used in R&D environment

•Testing and qualifying manufacturing process setups and inspection of components

•Building of assemblies for process development and validating them'

•Prototyping & testing

Job Requirements

- Undergraduate or graduate degree (in-progress or transitioning) in Mechanical Engineering, Robotics, Mechatronics, or equivalent (e.g. has completed at least one term year 3 MECH, beginning year 4 in September 2026 or in M.Eng. program)
- Strong engineering fundamentals and ability to perform first-principles analysis to ensure a successful design (stress-strain, thermal, tolerance, cost and mass optimization, etc.)
- Excellent CAD skills in CATIA/3DX and Solidworks
- Mechanical design experience, both in part optimization and design for manufacturing (design, drawings, GD&T)
- Knowledge about gearbox, motor, inverter, wire harness design
- Programming skills in Matlab/Simulink and/or Python are preferred
- Particularly good skills in structural optimization with FEA/hand calculations
- Hands on actuator and component (motor, gear, sensors) testing
- Experience in Control Theory with basic understanding of motor and motion control is preferred
- Basic fabrication, machining, wiring, general electronics, debugging, and parts chasing

Citizenship Requirement N/A

APPLICATION INFORMATION

Application Procedure Through UBC Science Co-op
Cover Letter Required? Optional
Address Cover Letter to Hiring Manager

Special Application Instructions

All applications for this position through PD Portal. Include co-op student summary sheet, a **one page resume;** cover letter is optional.