

# Reconfigurable Electrical Probing System for Thin Film Devices

# List of Deliverables

ELEC 491 Capstone Project University of British Columbia

April 8, 2025

Client: Orca Advanced Materials Inc.

Anindya Lal Roy

Authors: Team JY-85

Aaron Loh, Dipak Shrestha, Idil Bil, Kerem Oktay, Peggy Yuan

### **Table of Contents**

1. List of Deliverables	2
1.1 Software Deliverables	2
1.2 Electrical Deliverables	2
1.3 Mechanical Deliverables	2
1.4 Documentation Deliverables	2
Appendix A. Team Roles	3
Appendix B. Document Contributions	4
Appendix C. Deliverables Contributions	Ę

#### 1. List of Deliverables

#### 1.1 Software Deliverables

- → GUI source code files (.py)
- → Microcontroller firmware source code (.c and .h files)
- → Final firmware build outputs for the device (.elf / .bin files)

#### 1.2 Electrical Deliverables

- → Low-power PCB with current and voltage drivers and sensors
- → Protection circuits with hardware error detection
- → Circuit for reconfiguring pins electrically
- → PCB CAD files schematic and layout captures

#### 1.3 Mechanical Deliverables

- → Assembled chassis with PCB and gold probes
- → CAD files for the chassis

#### 1.4 Documentation Deliverables

- → Device user manual
- → Comprehensive technical report
- → Bill of materials

# **Appendix A. Team Roles**

Name	Initials	Tech Lead	Management Lead
Aaron Loh	AL	Monitoring System	Team Liaison
Dipak Shrestha	DS	Switching Network	Inventory Manager
Idil Bil	IB	Software / GUI	Project Manager
Kerem Oktay	КО	Firmware / MCU	Document Manager
Peggy Yuan	PY	Driving System & Mechanical Design	Treasurer

# **Appendix B. Document Contributions**

Section	Major Contribution	Minor Contribution	Author	Reviewer
1.1 Software Deliverables	IB	DS KO	IB	DS
1.2 Electrical Deliverables	DS	KO PY AL	DS	КО
1.3 Mechanical Deliverables	PY	AL	PY	AL
1.4 Documentation Deliverables	IB	DS	IB	DS

# **Appendix C. Deliverables Contributions**

Deliverable	Major Design	Minor Design	Major Test	Minor Test
Software	IB KO	KO IB	IB KO	KO IB
Electrical	PY DS AL	КО	PY DS AL	KO IB
Mechanical	PY	DS	PY	DS
Documentation	IB KO PY DS AL	IB KO PY DS AL	-	-