

Haemograph Pty Ltd

Attention:

Dr Lily Li
Convenor, EAT20008 Professional Experience in Engineering
Swinburne University of Technology
P.O. Box 218
HAWTHORN VIC 3122

30/5/25

Dear Lily, Professional Experience in Engineering

Reference: Utkarsh Ranjan, 102874485

I confirm that **Utkarsh** has completed their Professional Experience in Engineering at Haemograph Pty Ltd.

Utkarsh completed 12 weeks full time equivalent (based on a normal full-time working week of 40 hours) of experience between 11/11/24 and 10/6/25. During this time, they completed the following duties;

- Designing and implementing control logic for various actuators and sensors critical to fluidic management within the system.
- Development of firmware for a novel blood coagulation testing device
- Working on hardware-in-the-loop testing, including integration and validation with motor drivers, pump systems, and mechanical assemblies.
- Collaborating across multidisciplinary teams to support seamless integration of mechanical, electrical, and software subsystems.
- Assisting with debugging and performance optimisation to meet stringent clinical and timing requirements.
- Documenting firmware architecture, test protocols, and performance metrics to ensure traceability and compliance with quality standards.
- Troubleshoot and debug mechanical and electrical issues during the development phase, ensuring optimal performance and reliability.
- Optimise system performance through iterative design improvements and rigorous performance testing.
- Document design specifications, test procedures, and results for future reference and regulatory compliance.

Kind regards,



Ragil Krishna

Senior Research Scientist

27/05/25