CURRICULUM VITAE · 2026

OPEN TO INTERNSHIPS & VACATION WORK

LIAM CLOETE

Industrial designer • Product development • Prototyping

BASED
Stellenbosch, Western Cape

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PROFILE

I design objects and then make them. I take an idea from first sketch to working prototype, across **industrial design, mechanisms, digital fabrication and electronics**. Third-year BA Industrial Design student at Open Window, Stellenbosch, most at home between SolidWorks and the workshop: steel, timber, sheet metal, 3D printing and the small circuits that make things move.

EXPERIENCE

2024 – now

Prototype fabrication consultant

Freelance • Open Window

Fabricating 3D-printed prototypes for second- and third-year design students: print settings, materials and tolerances, and fixing SolidWorks and Fusion models so they print first time. Brief to CAD check to print to finished part.

2025 – now

Campus Pulse coordinator

Student Council • Open Window

Running campus surveys and turning the results into reports and infographics for council planning.

2026

Media team coordinator

Brand Stellies • Stellenbosch

Producing visual material for brand interviews and activations, on deadline across several projects at once.

2026

Concept developer, student brand Dead Reckon

ID300 5K project • team of five

Developed the Argo Multistand, a laser-cut and TIG-welded 304 stainless stove stand, through to brand, style guide and launch material.

RECOGNITION

2026

Pangolin Award nominee

Open Window, for work and contribution through the year

EDUCATION

BA Industrial Design

Open Window Institute, Stellenbosch • 2024 — now

Higher Certificate in Design Thinking

Greenside Design Center • 2023 • with distinction

National Senior Certificate

Selborne College • 2022

LANGUAGES

English
Native

Afrikaans
Proficient

SKILLS

CAD & VISUAL

- SolidWorks (advanced)
- Fusion 360
- Revit + Dynamo
- KeyShot • D5 Render • Visualize
- Drawings • GA • exploded views
- Photoshop • Illustrator

MAKING

- FDM 3D printing (PLA, TPU)
- CNC routing • DXF prep & nesting
- Laser cutting
- Sheet metal: cut, bend, weld
- Timber & MDF workshop
- Moulding & casting

ELECTRONICS

- C++ / Arduino • ESP32
- Sensors: IMU, FSR, real-time clock
- Stepper motors & drivers
- WS2812 LED systems
- ESP-NOW wireless links
- Circuit building & debugging

Selected projects

FULL PROJECTS, REPORTS & 3D MODELS AT LIAMCLOETE.COM

THIRD YEAR · 2026



ID300 · HEIRLOOM WALL CLOCK

Where Tomorrow

A one-hand clock: a magnet behind a copper face drags one steel ball round the dial, and a frosted glass veil shows only the present.

Fumed copper · bent-laminated Blackwood · waterjet aluminium · ESP32-driven stepper + RTC



ID300 · 5K BRAND PROJECT · TEAM

Argo Multistand

A flat-packing stand that clips under a gas canister so a hiker's stove stays upright on rough ground.

3 mm 304 stainless · fibre-laser cut · TIG welded · acid-washed · 210 g target



ID300 · STEM TOY, AGES 3–6 · SOLO

Colour Creature

Children slide red, green and blue acrylic paddles over a drawing and watch hidden pictures appear and disappear.

PLEXIGLAS acrylic · Baltic birch · 54-toy market survey · R535 unit cost



ID300 · SPATIAL DESIGN · SOLO

Tornica

A terraced pavilion above Hogsback under a Voronoi concrete shell, specified in bioreceptive concrete for moss and lichen.

Revit 2027 · Dynamo · D5 Render · 21.3 m drop over three levels



CC300 · AUTOMATED SYSTEMS · TEAM

Sword of Power

A film prop sword and crystal that talk to each other: touch them together and the blade charges, glows and plays its power-up sound.

Two ESP32s over ESP-NOW · IMU · FSR grip sensor · WS2812 LEDs · audio



ALSO IN 2026

Lidenana • Boiler Boom

A team-built RC boat shaped like a banana split, tested on a dam; and a steampunk board game with a live game master, built at the Stellenbosch Hackathon.

SECOND YEAR · 2025



ID200 · FLATPACK FURNITURE

Flatpack Vinyl Holder

A CNC-routed unit for records, turntable and amplifier that assembles by friction fit: no glue, no fasteners.

12 mm Baltic birch · single sheet · under 20% waste

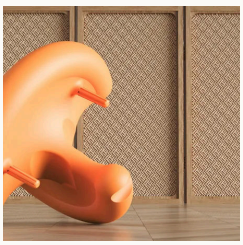


ID200 · SHEET METAL

GardenTower

Stacking sheet-steel modules that hang from the ceiling and grow plants in space student rooms never use.

2 mm mild steel · laser cut, bent, welded · powder coated



ID200 · ROTATIONAL MOULDING · ARMSA

SphericonRoller

A rotomoulded sphericon that turns a straight push into a wobbling, multi-axis roll for balance play, ages 3—5.

LLDPE · 5 mm wall · 1:6 FDM prototype