

Exciting Opportunity: Transform Agriculture with an Innovative Tethered Center Pivot Irrigation System (6-Week Vacation Work)

Location: Techno Park, Stellenbosch

Project Duration: November 2024 – January 2025

Application Deadline: 8 November 2024

We are seeking innovative and motivated Mechatronics students to take on the exciting challenge of designing and building a working scale model of a tethered center pivot irrigation system. This project offers the chance to apply your technical knowledge to a real-world agricultural technology, combining mechanical design, water systems, motorised movement, and automation.

Key Responsibilities:

- **Design and Build:** Construct a scale model of a tethered center pivot irrigation system, including mechanical components, water distribution, and drive mechanisms.
- **Motorized Movement:** Incorporate electric motors to simulate the rotational movement of the system around a central pivot.
- **Control Automation:** Develop and integrate an automated control panel (Arduino or similar) to regulate system movement, cable tension and water flow.
- **Sensor Integration:** Add sensors for real-time monitoring of water pressure, flow, cable tension and system alignment.

Required Skills:

- Strong knowledge of mechatronics, including electronics, control systems, and mechanical design.
- Familiarity with microcontrollers (e.g., Arduino, Raspberry Pi) for automation.
- Problem-solving skills and the ability to work effectively in a team.
- Enthusiasm for hands-on engineering projects.

Remuneration:

- We offer an hourly rate, which will be agreed upon based on experience and project requirements.

How to Apply:

If you're passionate about mechatronics and eager to take on this exciting challenge, send your CV and a short statement of interest to stefan@stower.co.za