engineers without borders
ingénieurs sans frontières
Canada

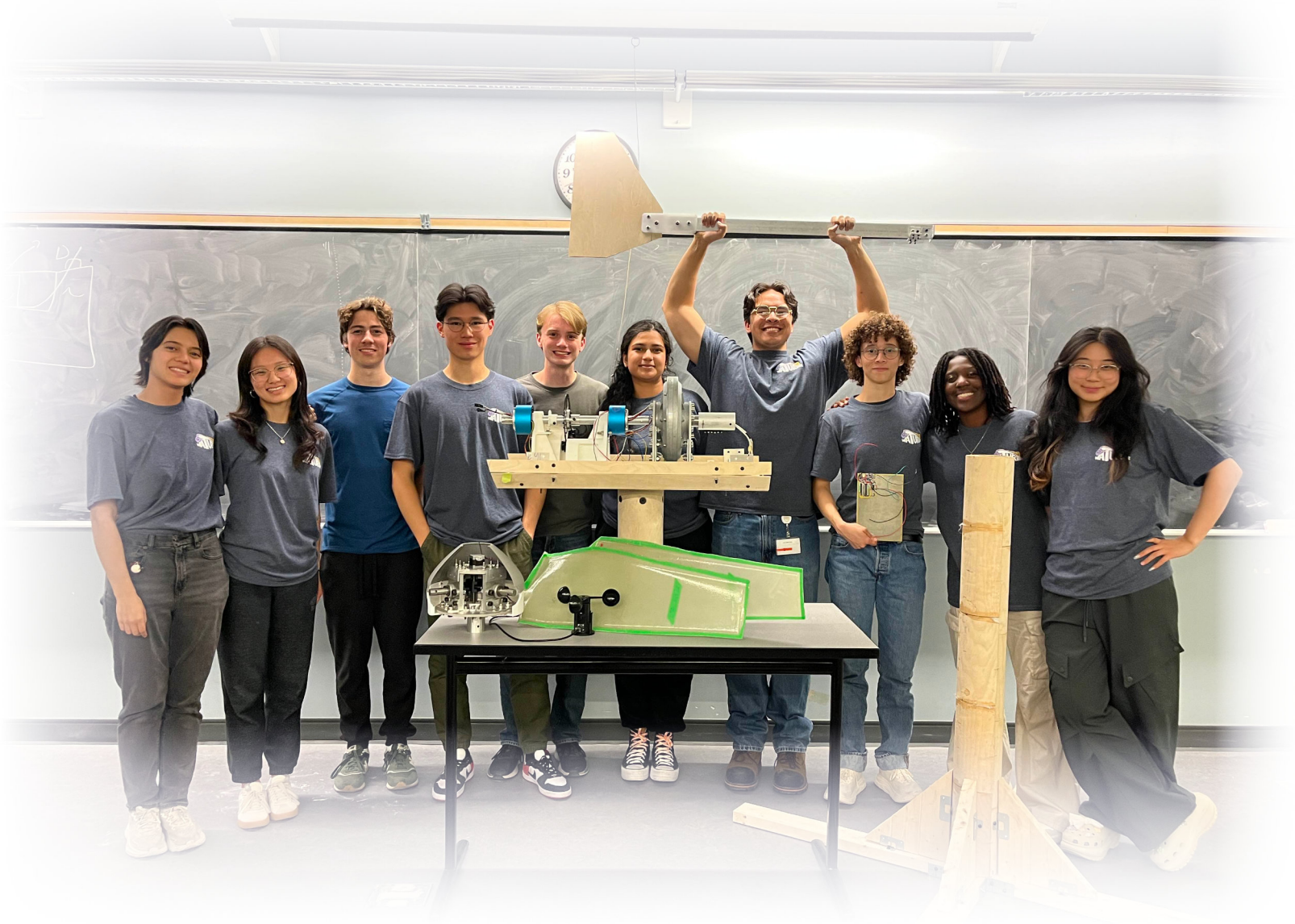
WATURBINE

Small Wind Turbine Design Team

Sponsorship Package 2025-2026

UNIVERSITY OF WATERLOO

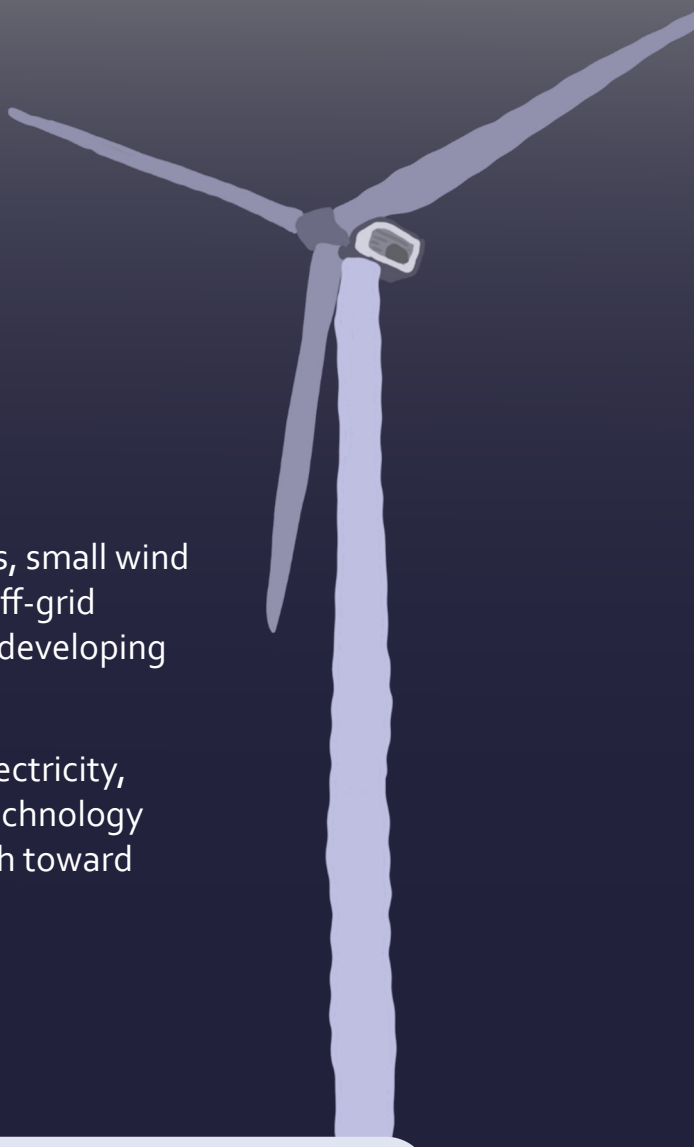
Our Team



WATurbine is a multidisciplinary team of ambitious engineering students from the University of Waterloo, working under Engineers Without Borders (EWB) Canada. Our mission is to design and manufacture a high-efficiency, sustainable small wind turbine intended for deployment in off-grid and energy-insecure regions, with a research focus on Sub-Saharan Africa.

In 2025, WATurbine aims to become the first University of Waterloo team to compete in the International Small Wind Turbine Competition (ISWTC), hosted annually in the Netherlands by Hanze University of Applied Sciences.

Why Small Wind Turbines Matter



While large-scale wind turbines power national grids, small wind turbines provide a critical solution for; remote and off-grid communities, urban and rural microgeneration and developing regions lacking electrical infrastructure.

Nearly 48% of Sub-Saharan Africa lacks access to electricity, despite vast untapped wind potential. Small wind technology offers a cost-effective, scalable, and sustainable path toward energy equity.

The International Small Wind Turbine Contest (ISWTC)

The ISWTC is a week-long international engineering competition where student teams design and manufacture a functional small wind turbine, test performance in Delft University's open-jet wind tunnel and present sustainability, manufacturing, and deployment analyses. Teams are evaluated on energy output, sustainability, innovation, and technical communication.

WATurbine plans to compete in this years competition in the Netherlands.

Our Design Philosophy

WATurbine is committed to advancing wind technology through:

- **Sustainable material selection (recyclable and long-lasting components)**
- **Compact, low-footprint design**
- **Ethical engineering for real-world impact**

We aim to address key industry challenges, including turbine end-of-life waste, manufacturing emissions, and material recyclability.

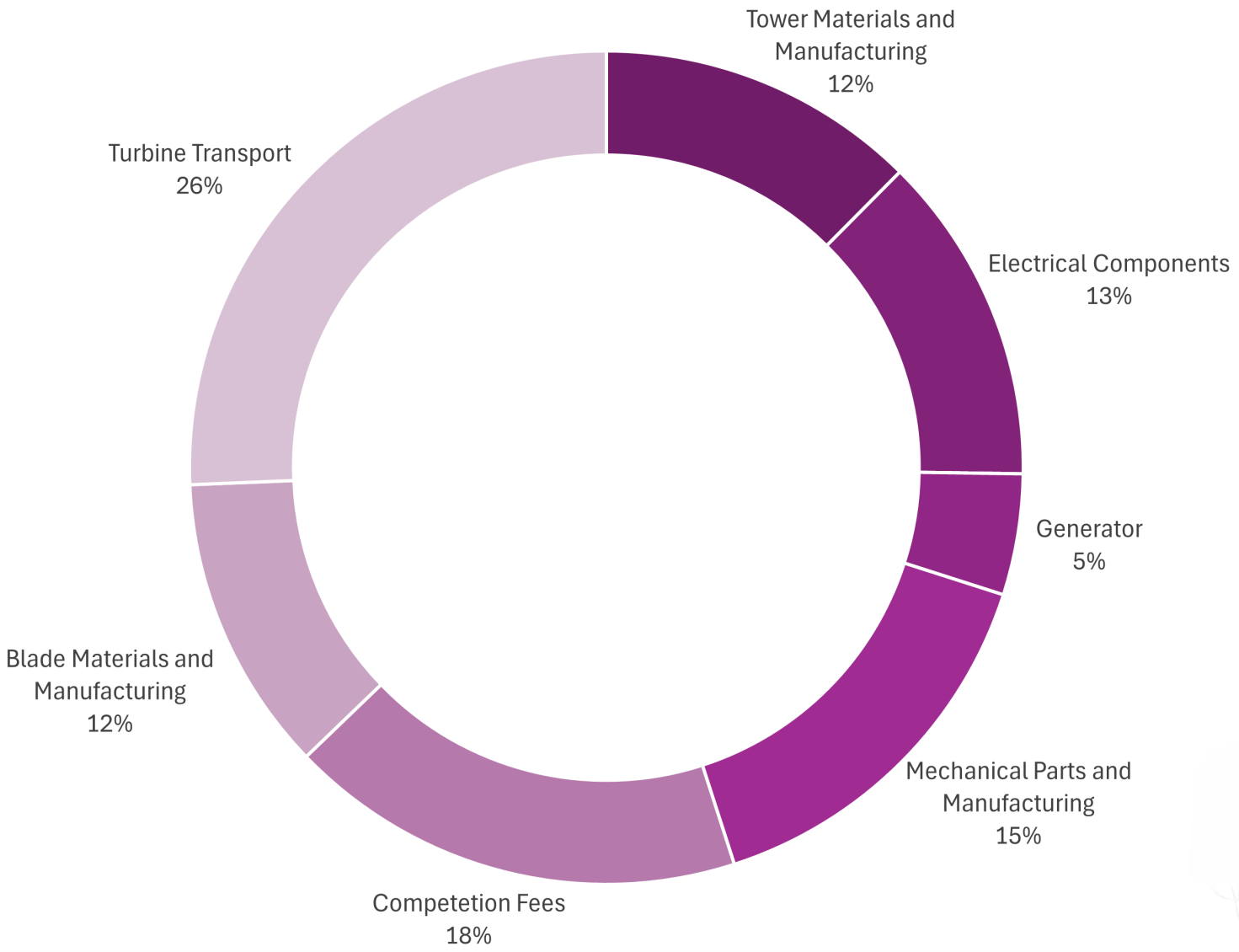
Impact

Wind energy is a fully renewable and rapidly expanding source of power, accounting for 7.3% of global electricity generation in 2023 and experiencing a 50% year-on-year growth in installations from 2022 to 2023. Continued advancement in wind technology is essential to achieving global climate targets, including the UN's COP28 goals. However, the wind turbine industry still faces significant sustainability challenges, such as large material footprints, limited lifespans, high manufacturing costs, and non-recyclable components like turbine blades.

Addressing these challenges is critical to improving the long-term viability of wind energy. Through the International Small Wind Turbine Competition, teams are tasked with developing sustainable small wind solutions for regions such as Sub-Saharan Africa, where nearly half the population lacks access to electricity despite vast untapped wind potential. Small wind turbines offer an efficient, scalable pathway to deliver clean energy to underserved communities while driving innovation in sustainable wind engineering.

Project Budget Overview

With a total initial budget of $12,559, WATurbine's costs are directed towards materials and manufacturing of the turbine components electrical parts, and transportation of the turbine from Canada to the Netherlands.



Your support directly enables hands-on engineering education and sustainable technology development.

Small Turbine, Big Hearts

WATurbine's work would not be possible without the support of our sponsors. With your contribution—monetary or in-kind—we aim to engineer a high-performance, sustainable wind turbine while representing the University of Waterloo's culture of innovation and Engineers Without Borders' commitment to socioenvironmental impact.

Your support directly advances hands-on renewable energy education, and our sponsors will be proudly recognized on our turbine, team apparel, and website. Thank you for considering supporting WATurbine as we work toward a greener future.

	Platinum $5,000+	Gold $3,000+	Silver $1,000+	Bronze <$1000
Logo on Turbine	XL	L	M	S
Logo on Team Apparel	XL	L	M	S
Logo on Social Media + Website	XL	L	M	S
Certificate of Appreciation	●	●	●	●
Logo on PCB's	●	●	●	
Mini Turbine Model Gift	●	●		

Let's Build a Greener Future Together

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