In the face of critical injuries or severe wounds, the presence of tourniquets - medical devices that enable the restricting of blood flow and prevent excessive bleeding - can often be the difference between life and death. The Gila tourniquet, unlike most other tourniquets on the market is uniquely designed to be effective for both large and small limbs - a critical feature that is necessary where children are among civilian casualties. As with all of Glia’s products, it is open source, and designed to be affordable and easily manufactured in low-resource settings.

In response to requests from international aid agencies and healthcare workers in Ukraine, Glia launched a campaign to print and export the Glia Tourniquet. A Glia tourniquet printed in Canada costs roughly half the cost of a Combat Application Tourniquet (CAT), the gold standard. This impact was enabled by our Ukraine fundraiser, through which we raised approximately $6,000.

In Gaza, where our design has realized a 99% success rate, our efforts continue through the Stop The Bleed campaign. Our Glia office in Gaza is actively equipping hospitals and ambulances with tourniquets and training paramedics and hospital staff in how to properly apply them. Our most recent fundraiser raised near $10,000, which will allow the Glia Tourniquets to be readily available to first responders, helping to save more lives.

Stop the Bleed: Glia’s Fundraisers for Tourniquets for Ukraine and Gaza

Why Open-Source?

We want to change the way people interact with their devices.

Providing communities with open-access, low-cost medical devices fosters a culture of self-reliance and sustainability. Through this open-access model, these communities are empowered to troubleshoot problems, customize designs to meet their needs and share their findings with others.

The ability to share successes in this environment allows medical and technical communities to work together and avoid duplication of work and long feedback cycles.

This model allows off-patent devices to exist as high-quality low-cost generic models.
This past July Glia collaborated with MedLINC students Harry, Tina, and Tarquin, through programming offered at UWO's Schulich Medical School. The program places medical students with indigenous communities in Grey-Bruce County, Ontario. The goal is to encourage indigenous youth to pursue post-secondary education in health-related fields while immersing them in the unique culture and heritage of the Chippewas of Nawash and Saugeen First Nation.

Hisham Shokr, a student volunteer that helped us distribute 600 stethoscopes to first year medical students across the province in March 2021, connected us with the program. The idea was that having 3D printed stethoscopes for the kids at the Rock Camp - run by Spring Dawn, Health Nurse at Chippewas of Nawash Health Centre - would be a really fun and empowering way to introduce them to the practice of healthcare.

This year’s camp hosted youth aged 9-19 where they were educated around many life lessons. Additionally, Glia Stethoscopes were assembled by the youth, an important part of the process both to ensure it’s functionality is precise and to create a connection between the stethoscope user and their device on a more personal level.

The youth assembling Glia devices was inspiring. The fun that these youth realized enhanced their learning experience which was open and free as they were all a doctor for a moment, playing the part with a professional Glia medical device.

Introducing The Kidney-CAP

People who suffer from end-stage kidney disease often require treatments in which blood circulates through a “hemodialysis” machine. Many of these patients connect to the machine using a surgically created connection between a vein and artery called a “fistula” or “graft.” One of the major concerns of patients and kidney care teams is bleeding from the fistula or graft, which can happen anytime and anywhere, and is a medical emergency. To address this, Glia has developed the Kidney-CAP, the first of its kind. The Kidney-CAP is a compact and convenient bleeding control device which can connect to a keychain (for example), to ensure a patient has instant access to the device and acts FAST.

The Kidney-CAP is easy to use. If your hemodialysis fistula or graft bleeds, act FAST...

F  Find your Kidney-CAP on your keychain.
A  Apply Kidney-CAP to bleeding fistual or graft.
S  Secure the Kidney-CAP with tape.
T  Telephone 9

The Kidney-CAP is an Open Source device and is 3d printed to ensure that quality is kept high while cost is kept low. It is manufactured in a facility that holds a Medical Device Establishment License from Health Canada. All Kidney-CAP devices are covered by a 1 year warranty and have a shelf life of 10 years.

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