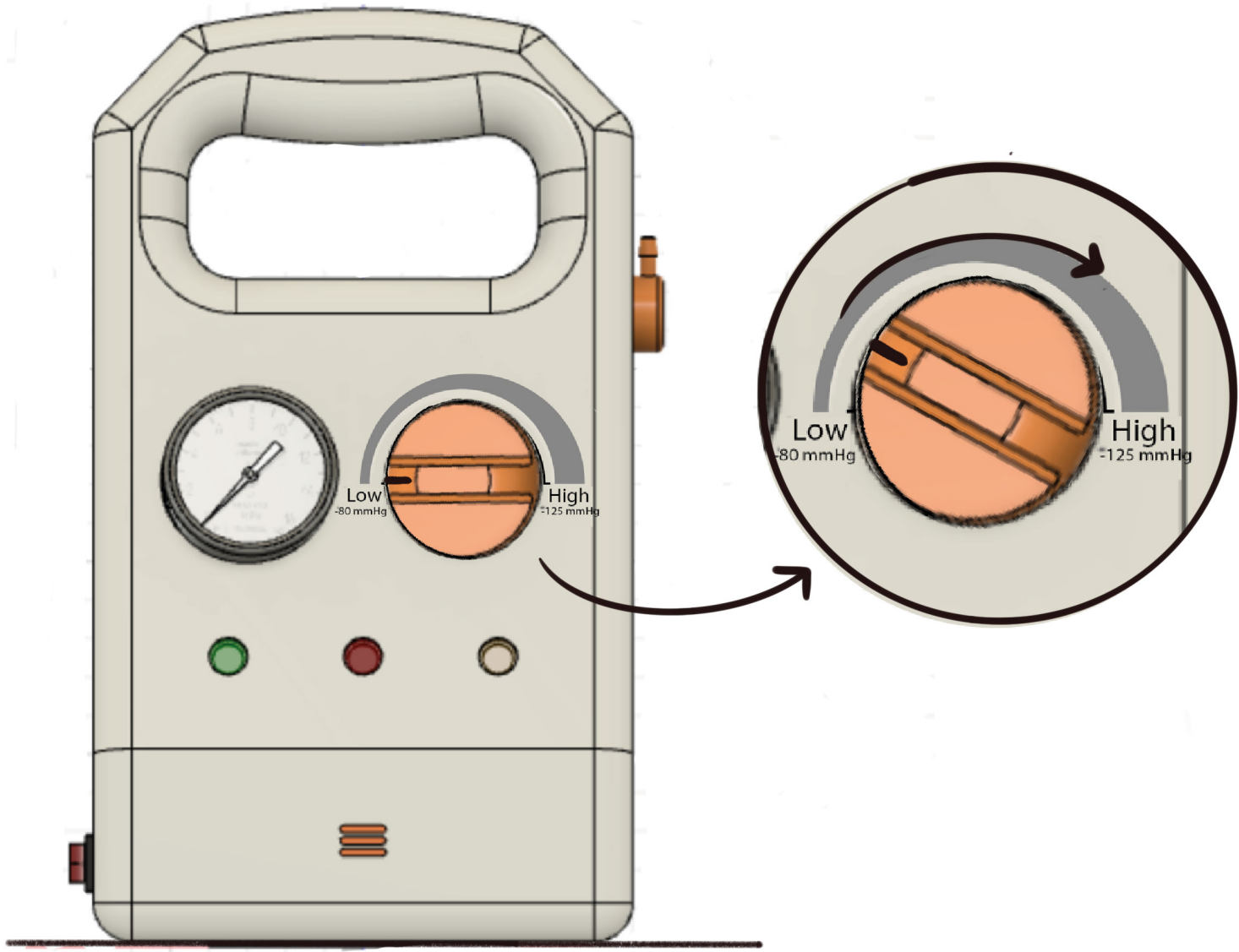


Many people living in low-middle-income countries (LMICs) are affected by injuries that develop into chronic wounds and, without adequate treatment, may lead to disabilities or even cause death. Negative Pressure Wound Therapy (NPWT) is currently a highly suitable manner to treat complex and chronic wounds. NPWT uses controlled negative pressure to stimulate wound healing and requires a vacuum device that is connected to a sealed vacuum dressing by a tube system.

**“A device that is affordable, safe and reliable
Made out of standard and widely available components”**



“NPWT is inaccessible to marginalized patients in LMICs, due to a lack of affordable equipment that is suitable for this context”

The WOCA Wound Pump is a simple, cheap and robust NPWT device. The battery powered, reusable vacuum pump is portable and can be made completely from locally sourced components. This affordable wound pump is fully compatible with standard canisters and self-made wound dressings. All components are replaceable which ensure a long lifespan. WOCA effectively and safely heals chronic and complex wounds, especially for the people who need it most.



Figure 55: Back-side render of the WOCA Wound Pump



Figure 56: Front view of the WOCA Wound Pump



Figure 57: Front-side render of the WOCA Wound Pump, including the canister (800 mL)

WOCA

A battery powered wound pump designed for low-resource settings



- Includes **automatic** pressure control
- **Compatible** with self-made dressings & standard canisters
- **Portable** design, battery lasts for 15 hours
- **Simple** interface, enables smooth operation & monitoring
- Easy to repair with **widely available**, replaceable components

Eileen Raaijmakers
Design of a low-cost device for Negative Pressure Wound Therapy in low and middle income countries
23-10-2022
Msc. Integrated Product Design

Committee

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