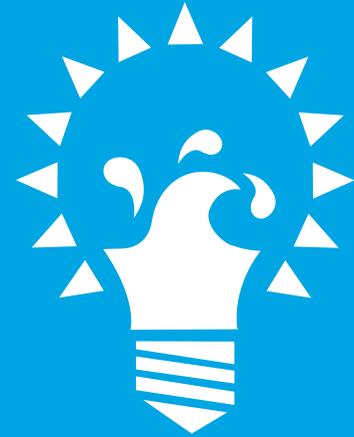


The Organization

Engineers Without Borders is a registered non-governmental organization (NGO) that conducts technical engineering projects in developing countries around the globe. The success and sustainability of our projects are directly linked with the strong emphasis we put on collaboration, community implication, knowledge transfer, capacity building, training and monitoring. Moreover, Engineers Without Borders Germany provides technical support to other local NGOs. Our committed volunteers are students, professors, professional engineers and other professionals, who work together to promote human development. Our mission is to provide technical engineering assistance to find sustainable solutions in a context of cooperation and development.

More information:

regensburg@ingenieure-ohne-grenzen.org
www.ingenieure-ohne-grenzen.org



Water Is Light

Pico Hydrosystems for private households

A project of the
Regional Group of Regensburg

**Darkest night from 6.p.m on. Every day.
Only kerosene lamps or camp fire break the
darkness.**

What is hard to believe for Europeans is daily routine for people in the countries close to the equator. The public power supply system is only little developed; hardly any household in rural areas gets energy. And fuel for generators is very expensive.

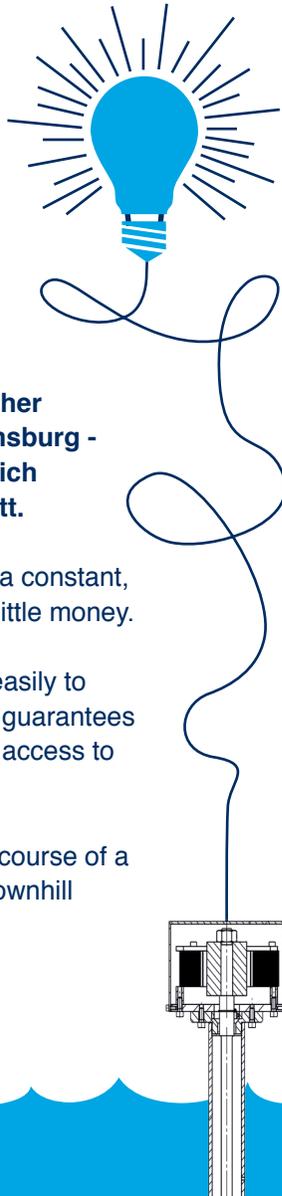
The Inspiration: Water Is Light

**Engineers without borders – together
with students from the OTH Regensburg -
invented a micro water turbine which
provides a household with 250 watt.**

Hydropower can generate energy in a constant, efficient and ecological way for only little money.

The miniature hydroelectric plant is easily to install. It is made for private use and guarantees its user permanent and independent access to energy.

The only thing that is required is the course of a stream as close as possible and a downhill gradient of at least two meters.



Already existing turbine systems for instance from Asia are way too expensive to be imported into Africa. To make matters worse maintenance and repairing are hardly possible as know-how and replacement equipment are missing.

As a consequence the construction of the WIL was radically simplified. It can be produced at a **low price by locally trained assistants** who use **domestic material and technology**. It's supposed to be sold for about 100 Euros. Assistants will be trained in special training centers to produce and repair the turbines.

Help for Self-help: Knowledge Transfer

The construction details of the WIL are no secret. There is an open source construction plan which is available for everybody.

Transferring technology is supposed to be a central issue for the future of developing countries. With our projects we want to give motivated people the chance to be politically and economically independent. Local know-how and eco-sensitive technology make it possible: sustainable development. That is the basis for own ideas.