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MAKEUP-ROBOT AND BEYOND
CO-DESIGNING ASSISTIVE TECHNOLOGIES

Source: https://www.lynxmotion.com/ses-v2-robot-arms/

FACTS

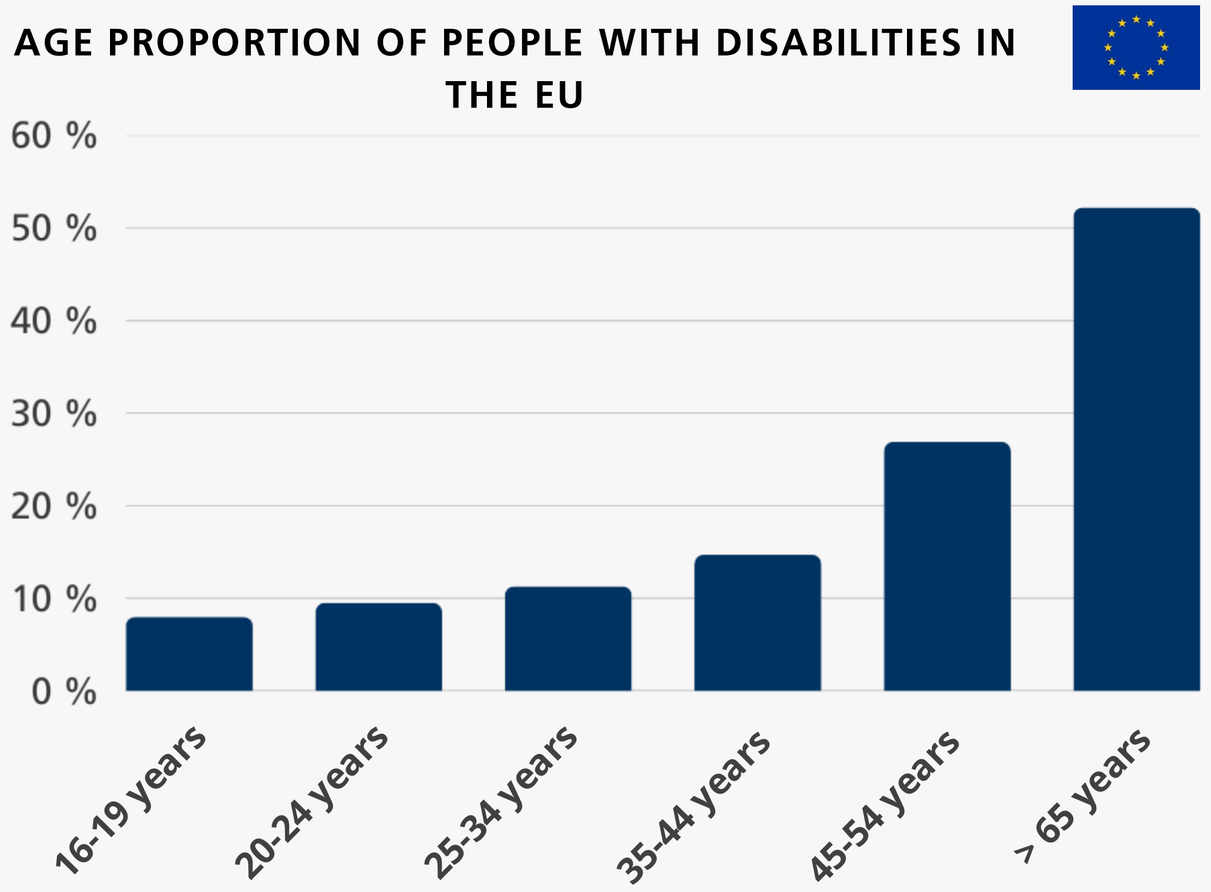
In Austria, around 1.9 million people between the ages of 15 and 89 live with a limitation in activities of daily living.[1]

[1]Bundesministerium Soziales, Gesundheit, Pflege und Konsumentenschutz: Bericht: Menschen mit Behinderungen in Österreich, Teil I, 2024.

IT CONCERNS EVERYONE

The risk of developing a disability grows with age.

Most people are not born with a disability but develop it later in life.[2]



[2]Eurostat; Europäischer Rat (Juli, 2024) : Fakten und Zahlen zum Thema Behinderungen in der EU https://doi.org/10.2908/HLTH_SILC_12

ASSISTIVE TECHNOLOGIES

play a pivotal role in promoting the autonomy and independence of people with disabilities.

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Sources: https://aestheticsresearch.substack.com/p/the-ugliness-of-mobility-aids, https://accesstech.ch/produkte/stationaere-bildschirm-lesegeraete/, https://www.peteradamsphoto.com/stretch-re1-with-henry-evans/, https://www.stille-stunde.com/

ASSISTIVE TECHNOLOGIES

Many abandon their assistive technologies or do do not find suitable solutions because...

...they are costly and need expertise

...they must be rolled out by other stakeholders

...they are ugly

...they don't meet individual requirements

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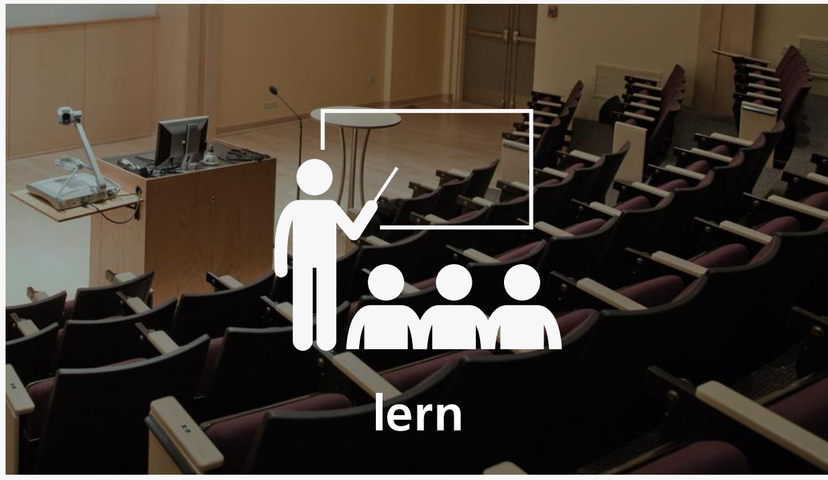
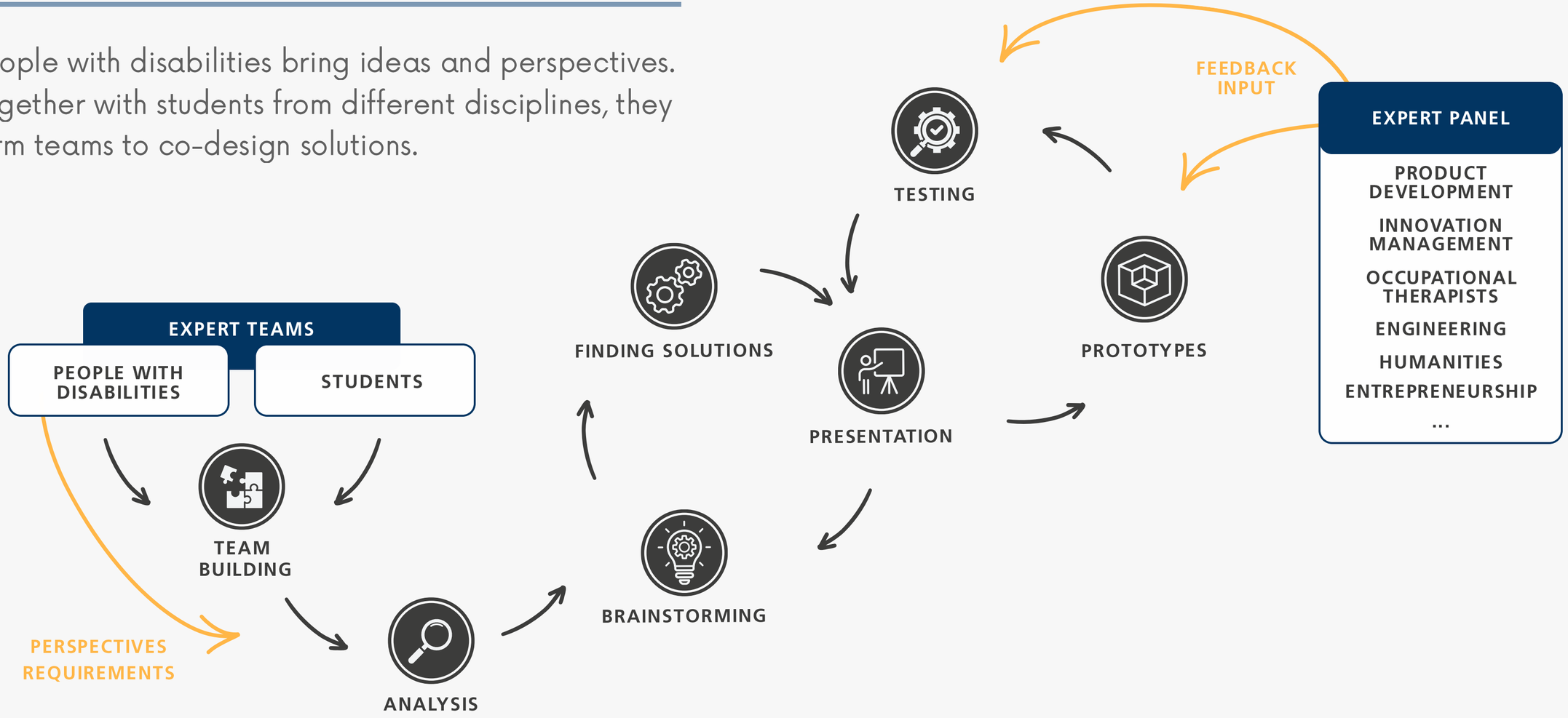
We want to foster an inclusive society by bringing together students and people with disabilities to develop assistive technologies.



HOW?

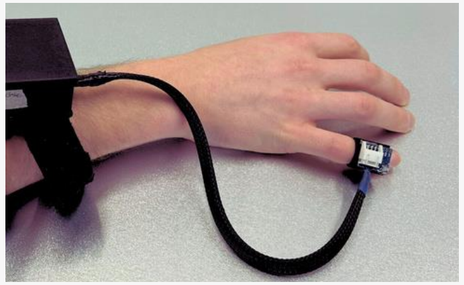
People with disabilities bring ideas and perspectives. Together with students from different disciplines, they form teams to co-design solutions.



PROJECTS

We develop practical aids and new concepts to improve the quality of life of people with disabilities.

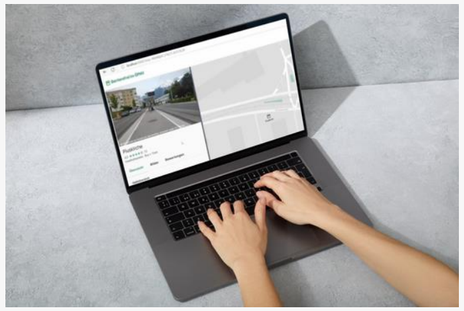
Our projects range from simple everyday aids to complex technical systems.



TOOL FOR COMMUNICATION

MAKEUP ROBOT

SILENT HOUR



ACCESSIBLE PUBLIC TRANSPORT

TOOL FOR COMMUNICATION

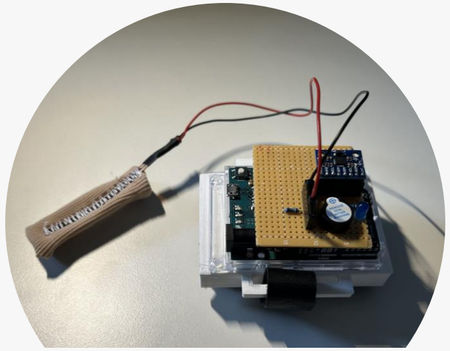
A device that allows people with locked-in syndrome to communicate with finger movements.

Two Bachelor's students started their project during our course and have continuously improved their system.

PROTOTYPE 1

Infrared sensor

PROTOTYPE 2



Strain gauge

PROTOTYPE 3

Inertial Measurement Unit

FUTURE

Message instead of a signal tone
Reliable triggering
EMG-based

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MAKEUP ROBOT

Marianne requested a “hand for daily living” which resulted in a Master thesis to develop a make-up robot

Lynxmotion
SES-V2

CHALLENGES

- Pick and hold different make-up products
- Usable and controllable by Marianne
- Low-cost solution, <1k
- Open-Source Code and CAD

SILENT HOUR

Shopping can be difficult to impossible for people in the neurodivergent spectrum.

We want to establish silent hours in different shops in Innsbruck and Tirol.

Together with..

integration · tirol

Lichterkette

5 MEASUREMENTS

- Quiet environment
- Pleasant light
- Sensory orientation plan
- Assistance dogs must be allowed
- Flexible staff deployment

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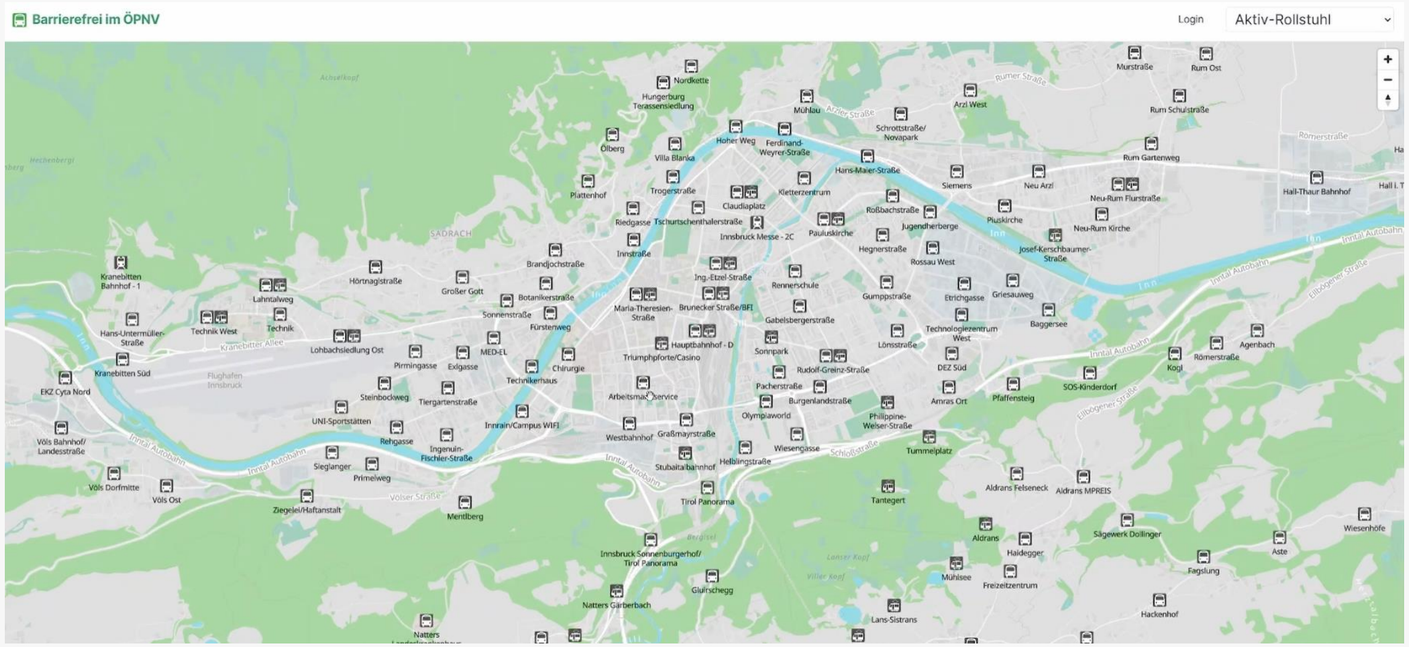
ACCESSIBLE PUBLIC TRANSPORTATION

Providing information about accessibility enables people to plan their trip with public transportation



Piuskirche

4,0 ★★★★☆ (1)

Inselhaltestelle: Bus • Tram

Übersicht | Bilder | Bewertungen

Haltebereich

- ✓ ≥ 150×150cm
- Ausstiegsbreite unbekannt
- 120cm Durchgangsbreite
- 23cm Bordsteinhöhe
- ✓ Aufzug wird nicht benötigt

Untergrund

Asphalt

Neigung

- 0.0° Längsneigung
- 1.0° Querneigung

Bordsteinabsenkung

- 2.0° Steigung
- 300cm Breite

- Open-Source, built on OpenStreetMap and Mapillary
- Community-based information and pictures
- Deployment and maintenance in discussion

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WHO ARE WE?

Team INNklusion

Partners and Supporters

universität innsbruck

universität innsbruck
Förderkreis 1669

LAND TIROL

Universität Innsbruck

ÖZIV TIROL
Für Menschen mit Behinderungen

INNS' BRUCK

BBR
BEHINDERTENBEIRAT

PARTICIPATE!

because most barriers are in the mind

Check out our website for **meetings** and **more** assistive technologies we built.

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