

# ClickID: KI-basierte Werker:innenführung in der Montage

ClickID: AI-based worker guidance in assembly



**VOSS**

VOSS Group

# We are the system partner for fluid management

VOSS develops and produces innovative line and connection systems for mobile and stationary applications.



# Industry solutions

With over nine decades of experience, we offer customized systems for a wide range of requirements in mobile and stationary applications.



Trucks and buses



Passenger cars and light vehicles



Off-Highway and mechanical engineering



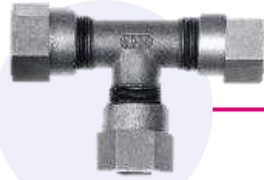
## Milestones of the history

From plumbing fittings to ready-to-install modules for vehicle and machine construction.



**1931**

Foundation of the  
Armaturenfabrik  
Hermann Voss



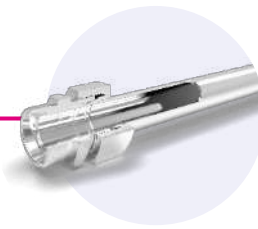
**1954**

Tube couplings for  
mechanical  
engineering



**1975**

Quick connect  
systems for air  
brakes



**2003**

Introduction tube  
forming system



**2004**

Modules for SCR  
systems



**2007**

Market launch of the zinc-  
nickel surface VOSScoat



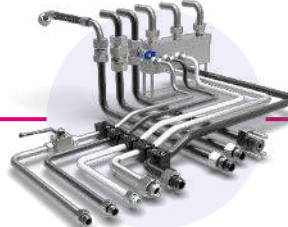
**2013**

Polymer Technology  
Center



**2014**

Line systems for battery  
temperature control



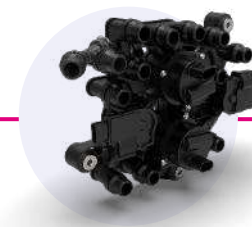
**2016**

Ready-to-install  
hydraulic lines



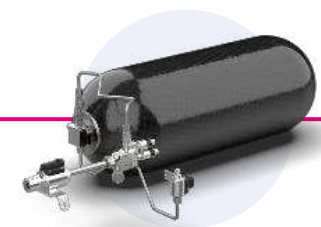
**2018**

Valves for thermal  
management



**2020**

Modules with valve  
control and  
mechatronics



**2022**

Valve components for  
H<sub>2</sub>- and fluid gas  
technology



 **CLICKID**  
BY VOSS



## Why ClickID?



- Modern cars have around **700 connectors** for nearly 3000 wires that send crucial information between modules  
(<https://blogs.sw.siemens.com/ee-systems/2020/07/28/wiring-harness-development-in-todays-automotive-world/>)
- Visual barriers, time pressure and varying skill level of operators lead to **missed or incomplete connections**
- These errors mean expensive **troubleshooting and rework**

**ClickID** is a smart wearable that uses artificial intelligence to **identify clicks**, reduce errors and increase process stability



## Technical overview


**Sensor unit**  
clipped to index  
finger: recording  
movements

**Sensor unit**  
clipped to thumb:  
recording  
movements and  
audio



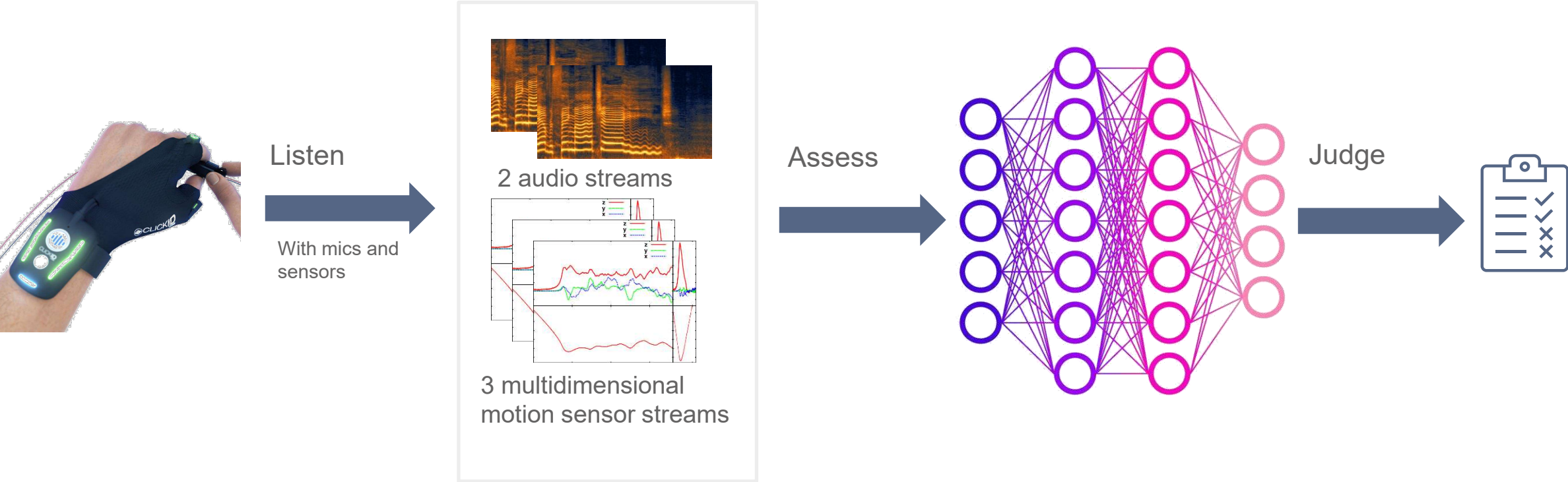
„Glove“: Fixes sensor  
units and cables

„Heart“ of the device:  
wrist unit records  
movements, processes  
data and hosts the AI  
model



Sensors  
**recognize the  
assembly  
attempt** and use  
AI to **classify the  
connection** as  
successful or not

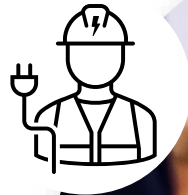
## From raw sensor data to greenlighting assembly steps



## ClickID benefits all stakeholders of the assembly process

### Quotes taken from customer projects

“I can prove that I correctly executed the assembly”  
Line worker



“We can lower costs for rework”  
Corporation

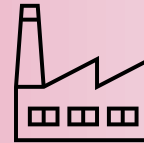


“I gain control and insight over my assembly process”  
Responsible officer

## ClickID benefits all stakeholders of the assembly process

### Example benefit analysis

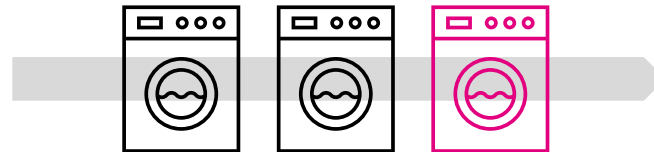
...by how much?



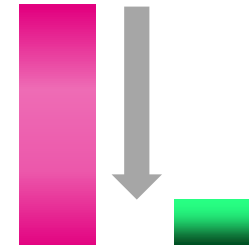
“We can lower costs for rework”  
Corporation



We tailor our AI model to your needs, aiming for **99% accuracy**, meaning...



- ...if you have an assembly process
- with 10 connectors, 100 units a day
  - with a 1% reject rate
  - costing you 100 € per reject



...you can reduce rejects by over **80%** and save **~16.000 €** per month in reject / repair cost alone

## We install ClickID within 5 steps at your production

### Acquisition



Get in touch, Use  
Case predefinition

### Specification



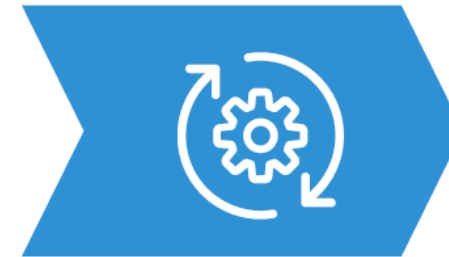
Specification of  
technical  
requirements, initial  
data recording,  
POC

### Training



Long term data  
recording and  
training of the AI

### Installation



Configuration/  
Customizing of the  
software and AI,  
implementing the  
devices into IT

### Support



Support in case of  
technical  
challenges, AI  
updates, Q&A

# Thank you!



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