



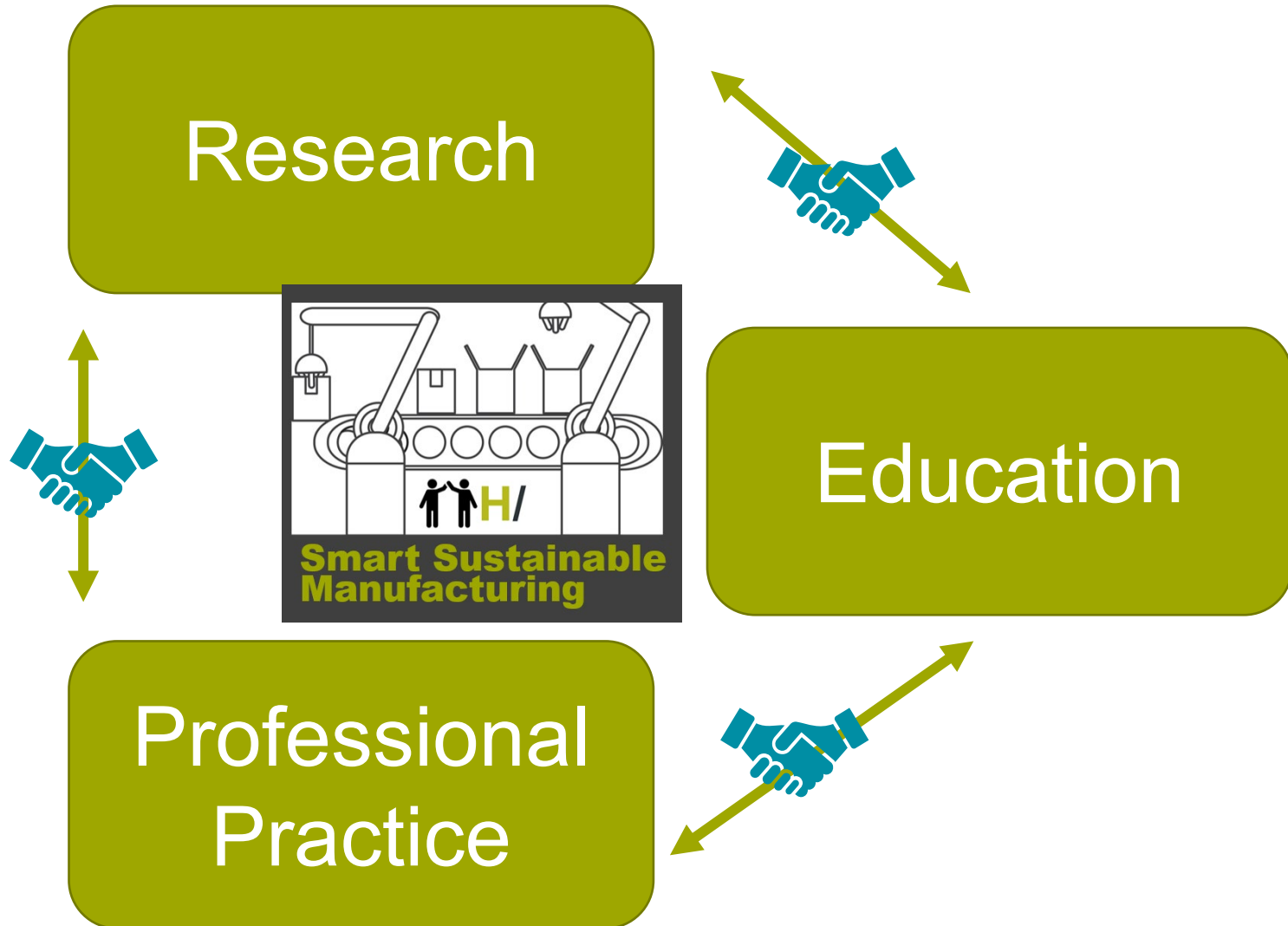
Can we fix it?

RE/manufacturing Lab

Update Semester 1 2023/2024

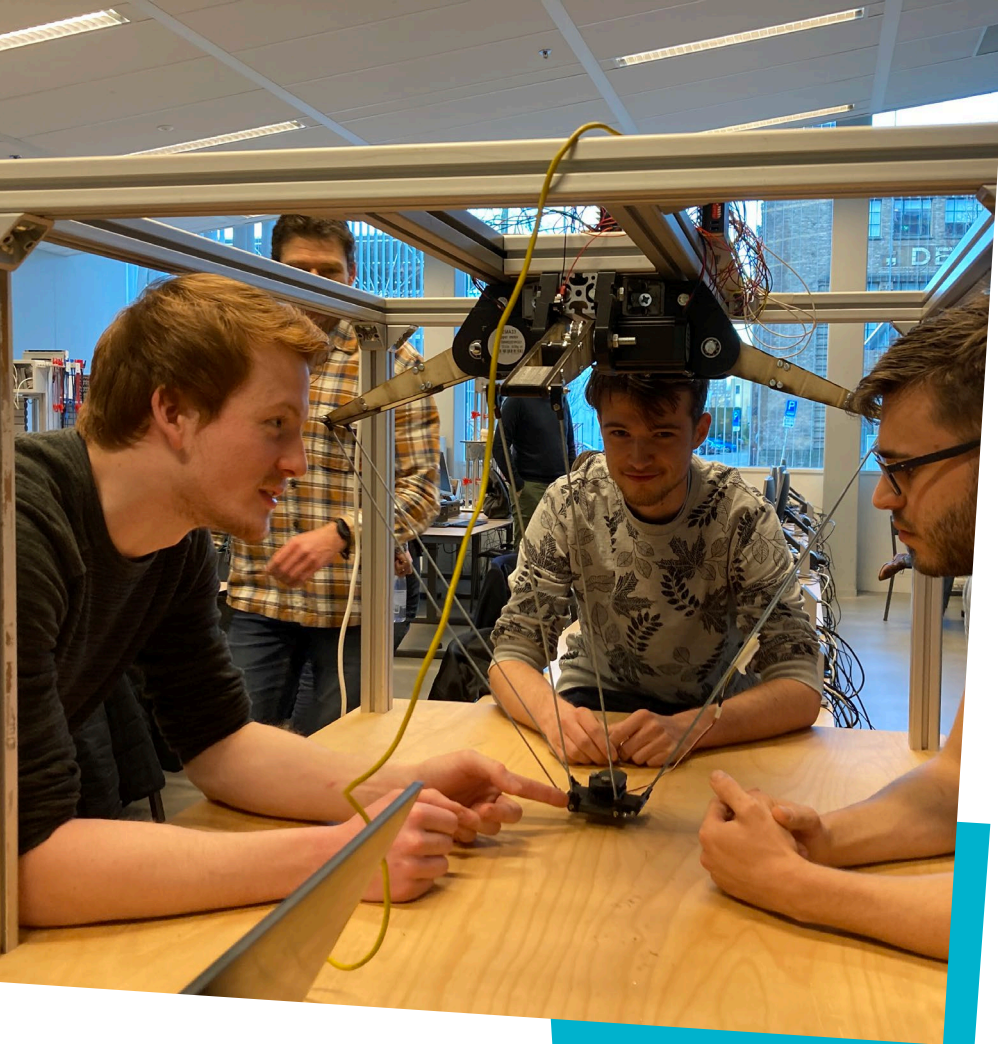
DE HAAGSE
HOGESCHOOL

Societal Challenges



- **Climate:** energy & materials transition
- **Future of Work** (shopfloor, process & employee)
- **Digitization (SMEs)**





Can We Fix It? Lessons From a Learning Factory

Problems for Manufacturing Companies

Right to Repair -> keep spares on stock for longer period, also spares that are hard to come by

Repair Index (quality repair documentation, disassemblability, availability and cost of spares, software support)

Extended Producer Responsibility (include eco-cost in your price, take responsibility for end-of-life)

Questions about **Product-as-a-Service** propositions

Research Group Smart Sustainable Manufacturing

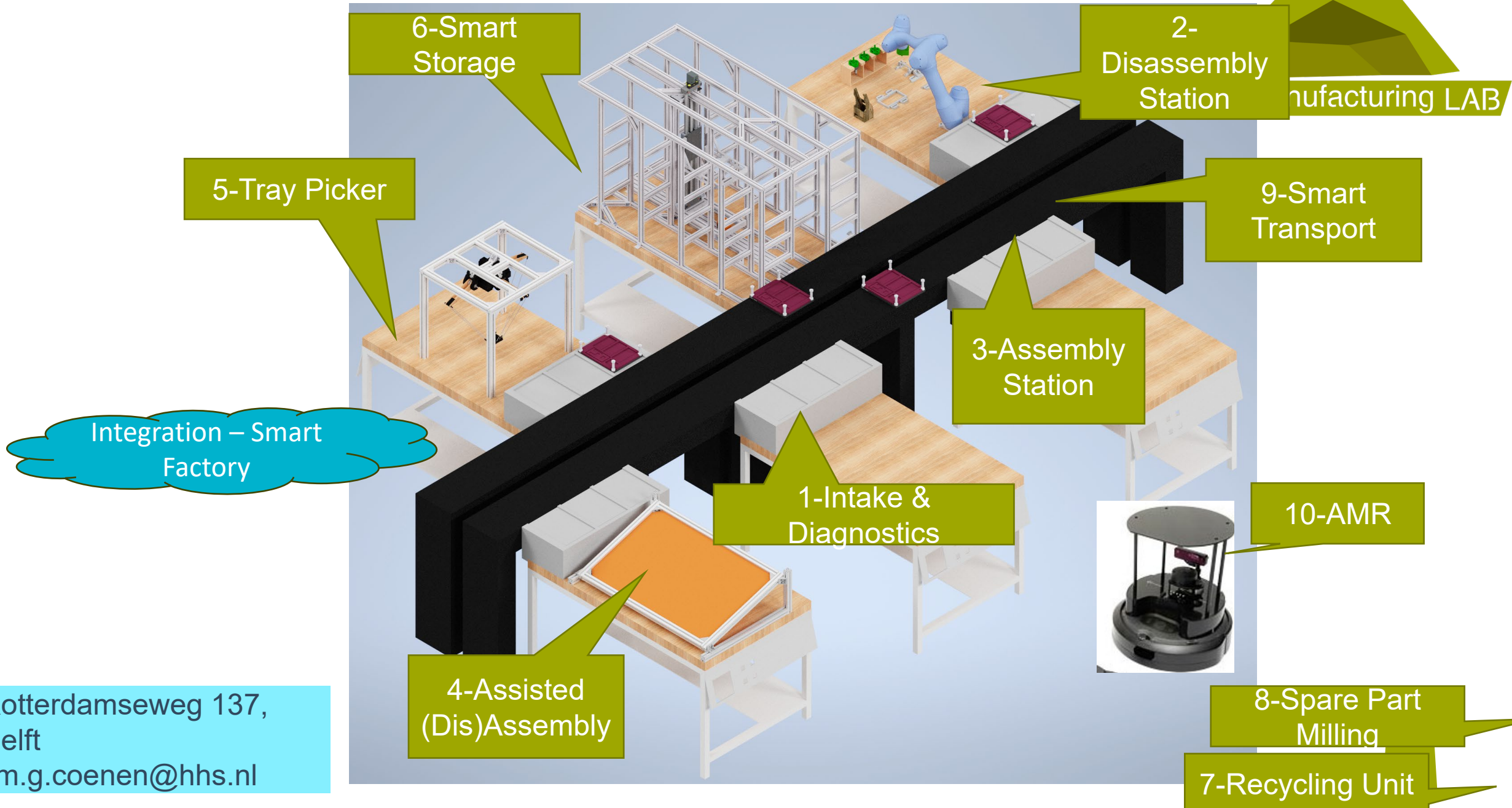


Multi-disciplinary group (mechanical, industrial, industrial design engineering, mechatronics, applied mathematics, IT); mixed scientific/professional background and ~24 students per semester

**Research Group
Smart Sustainable Manufacturing**



Goal for September 2024



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Delft
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Cost-efficient disassembly

Understanding needed:

- How disassemblability of products differs for manual vs. automatic processes;
- Feasibility of realizing economic value by smart disassembly;
- Impact on Design-for-Disassembly Guidelines?



a. Start



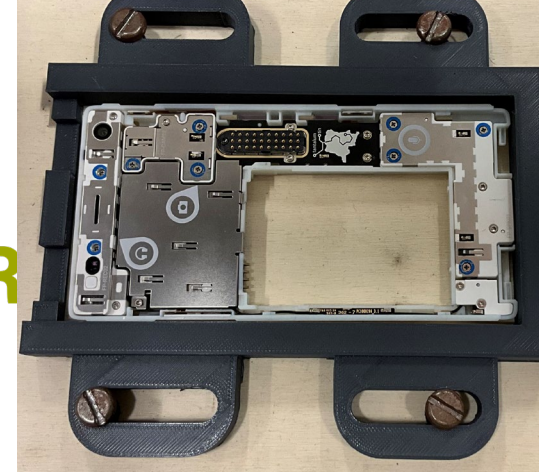
b. Remove cover



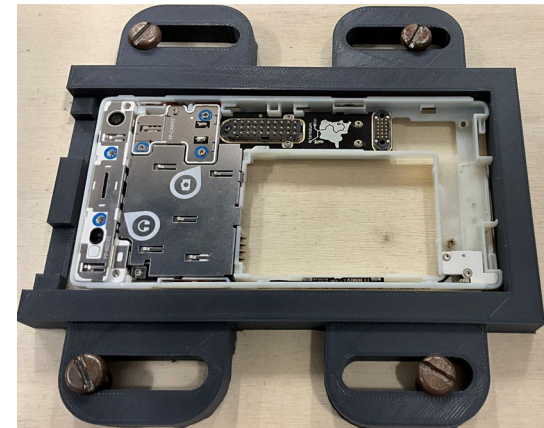
c. Remove battery



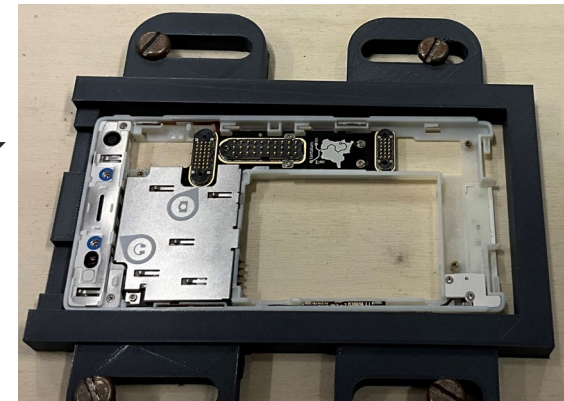
d. Remove 'bumper'



e. Remove screen



f. Remove speaker



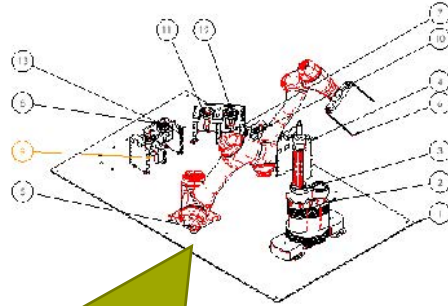
g. Remove camera



1. Cover
2. Battery
3. Bumper
4. Screen
5. Speaker
6. Camera
7. Tray



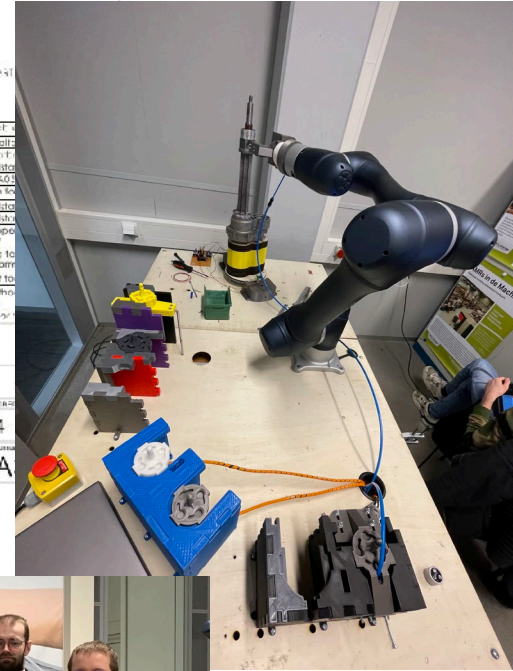
Results Feb 2024



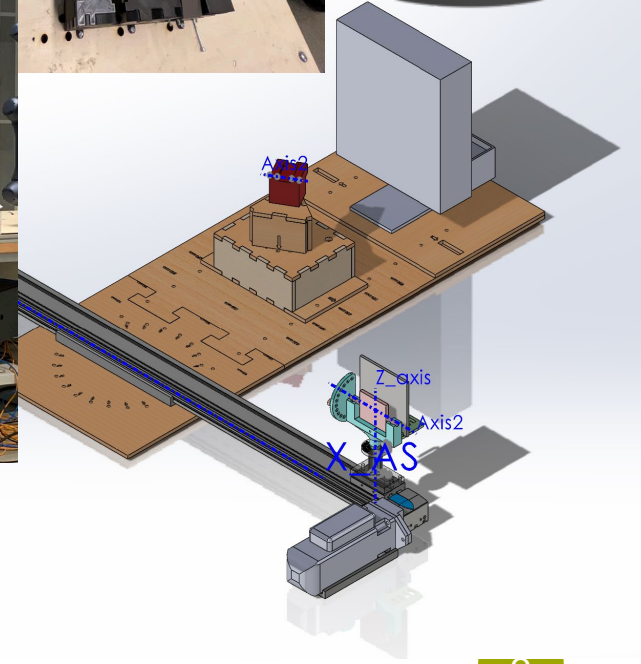
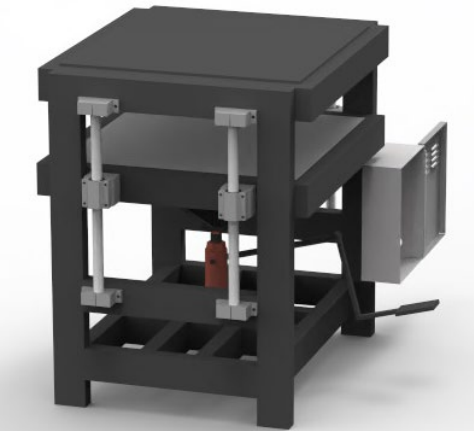
ITEM NO.	DESCRIPTION
1	RESEARCH CT...
2	ASAM-Editor
3	ASAM-Viewer
4	ASAM-Toolbox
5	Docuon-405
6	ASAM-High-Sc...
7	ASAM-Toolbox
8	ASAM-Toolbox
9	ASAM-Editor
10	ASAM-Viewer
11	ASAM-Toolbox
12	ASAM-Toolbox
13	ASAM-Toolbox

NAME	DATE	GROUP	GROUP
Disassembly station 2024			

HAGUE TECHNOLOGIE INNOVATIE & INNOVATIE
MECHATRONICA



**RE/man
Heroes**



Watch the videos

- [Disassembly Station 1.0](#)
- [Disassembly Station 2.0](#)
- [Disassembly Station 3.0 \[new!\]](#)
- [Pick & Place Station](#) Work-in-Progress
- [Led Grid Checker](#)
- [Digital Shadow](#)
- [Supply Robot Fischer Factory \[new!\]](#)
- [Operator Assistance for Assembly 1.0](#)
- [Tag Tester \[new!\]](#)
- [Assembly Hub \[new!\]](#)



Can we fix it?

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