

KEUZERICHTING IOT

Towards the Intelligent IoT Edge



IK...

- voel de nood om eens wat meer **hands-on** te zijn met **bordjes, modules en kabeltjes**
- ben geïnteresseerd in **programmeren** maar niet echt front-end websites, **meer back-end, low-level, ...**
- zou graag **met en in de Cloud werken** en een **architectuur maken van geconnecteerde componenten**
- wil meer **leren werken met AI en data** maar niet echt zozeer de business-kant of zware diepgang in AI

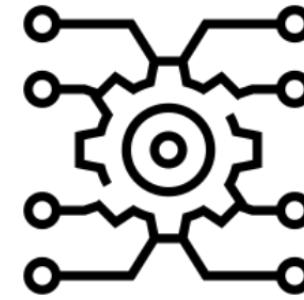
4 KERNASPECTEN



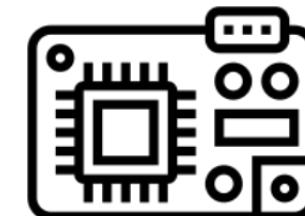
CLOUD



CONNECT



COMPUTE



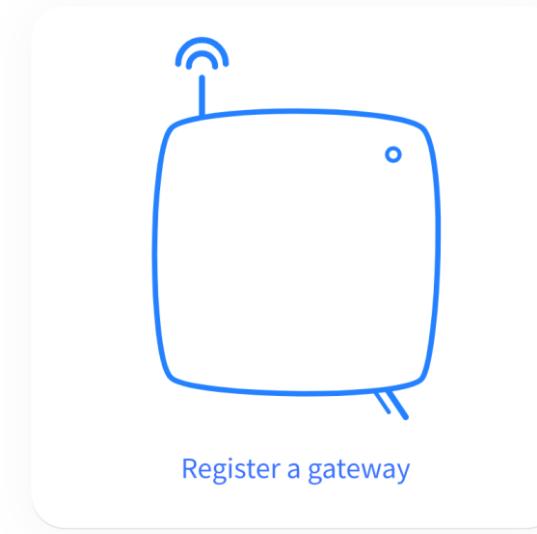
CONTROL

AZURE IOT

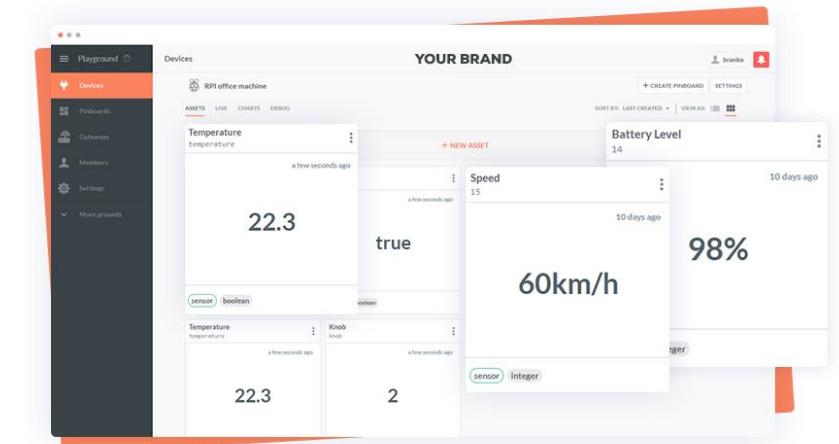


CLOUD

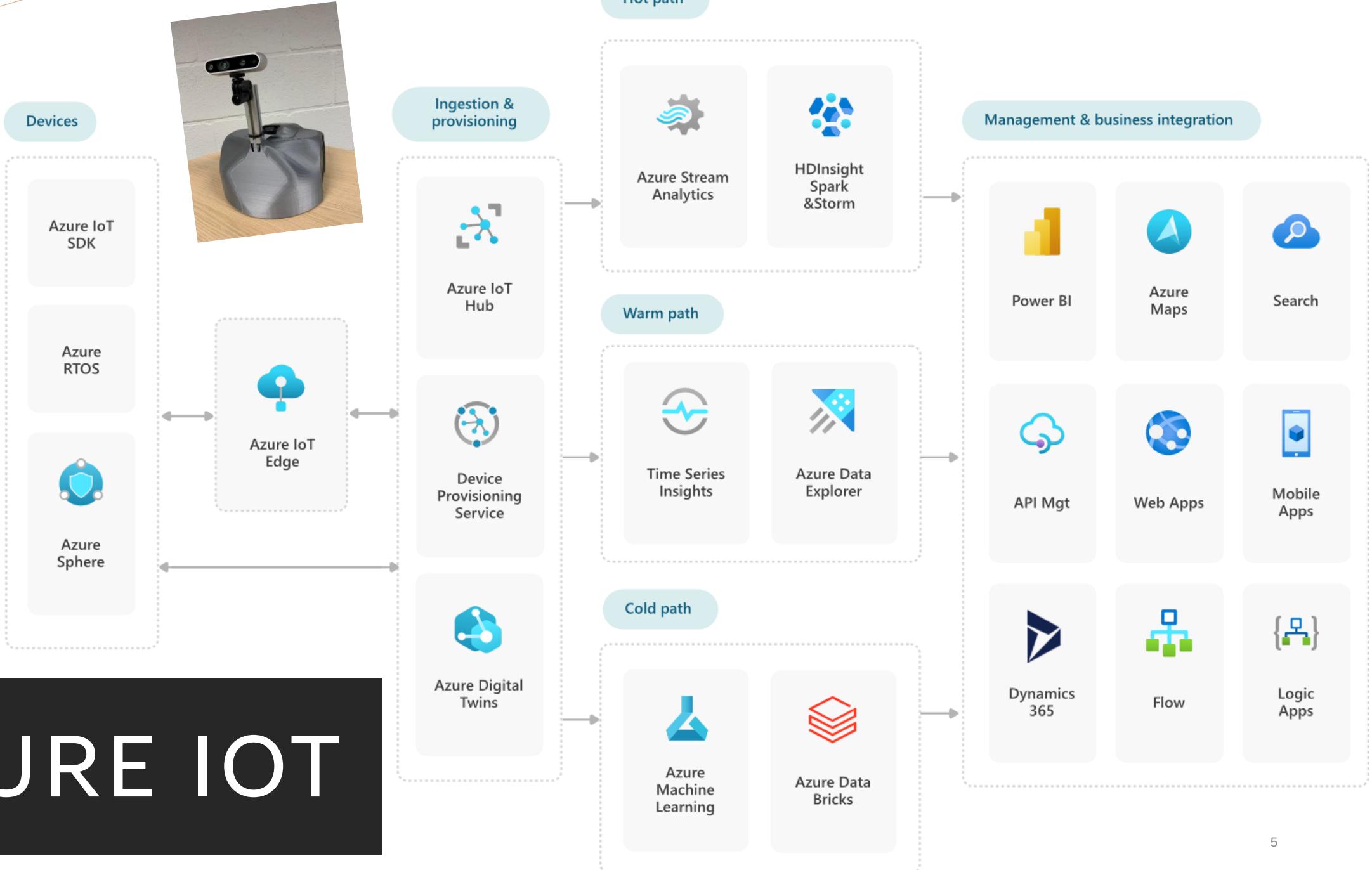
THE THINGS NETWORK



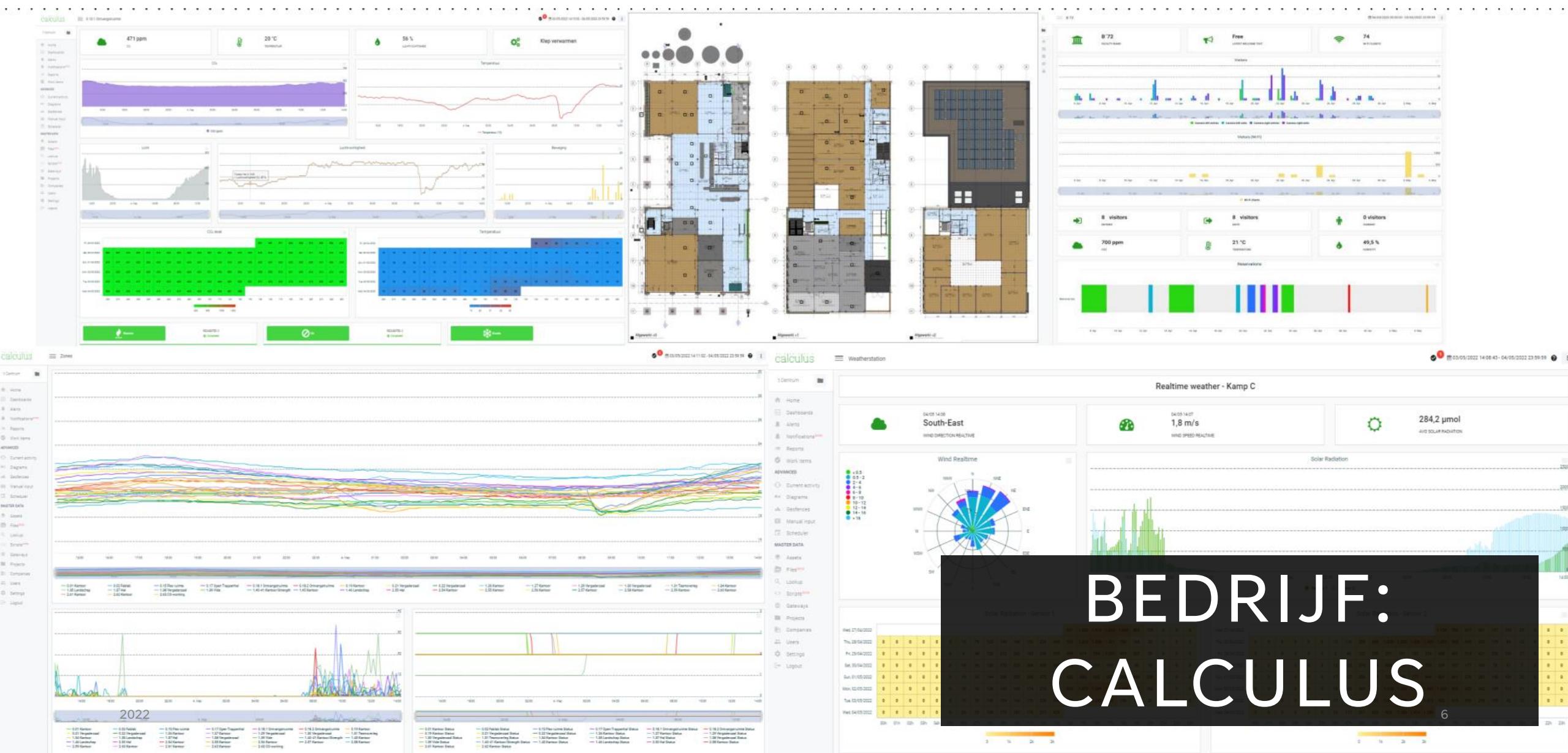
ALLTHINGS TALK



AZURE IOT

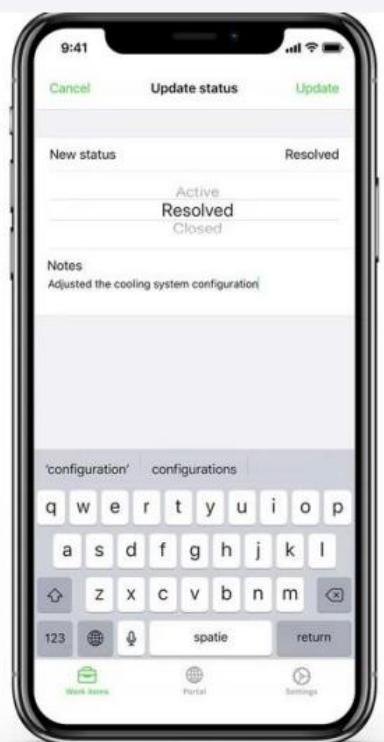


BEHEER VAN COMFORT & ACTIVITEIT



DATA GEDREVEN WORKFLOW & MELDINGEN

The screenshot shows the calculus software's main dashboard. On the left, a sidebar includes links for Home, Dashboards, Alerts, Reports, Work items, 360° Images, Current activity, Manual input, Assets, Companies, Settings, and Logout. The main area features a Kanban board titled 'KANBAN BOARD' with columns for TODO (2), ACTIVE, RESOLVED, and CLOSED. A specific item in the TODO column is 'Probleme Temperatur' assigned to 'Laurent Verschaeve'. Below the board is a mobile application interface showing a keyboard and a screen with sensor data for various rooms like Kitchen, Delta, and Toilet.



The screenshot shows a detailed status overview for 'Office rooms'. It includes a 'STATUS' section with a 'SHOW OVERVIEW DASHBOARD' button. Below this are three items: 'BewegingsAlarmGang' (status red), 'Delta' (status green), and 'Kitchen' (status orange). The 'Kitchen' item has a detailed view showing two recent alerts: '[27/01/2022 12:15:40] CO₂ 763 ppm' and '[27/01/2022 11:15:40] Too hot 22 °C'. At the bottom, there is another item for 'Omega'.

The screenshot shows a detailed sensor reading for a 'Toilet'. It lists CO₂ at 780 ppm and Temperature at 17.0 °C. It also shows two recent events: '27-01-2022 12:04 CO₂ ppm' and '25-01-2022 21:24 Too cold °C'. An 'Open dashboard' button is visible. A large message overlay on the right says: 'Twin.250.T02 Weerts Noord loskades: Tank level engine left is critical' and 'Tank level engine left is critical'. It also includes a 'BOLDT - All Assets' section with a code error message: 'Code: 20 - Error (25/10/2021 12:33:09 - UTC +2) Go to dashboard'.

BEDRIJF:
CALCULUS

'T CENTRUM – KAMP C



't **CENTRUM**

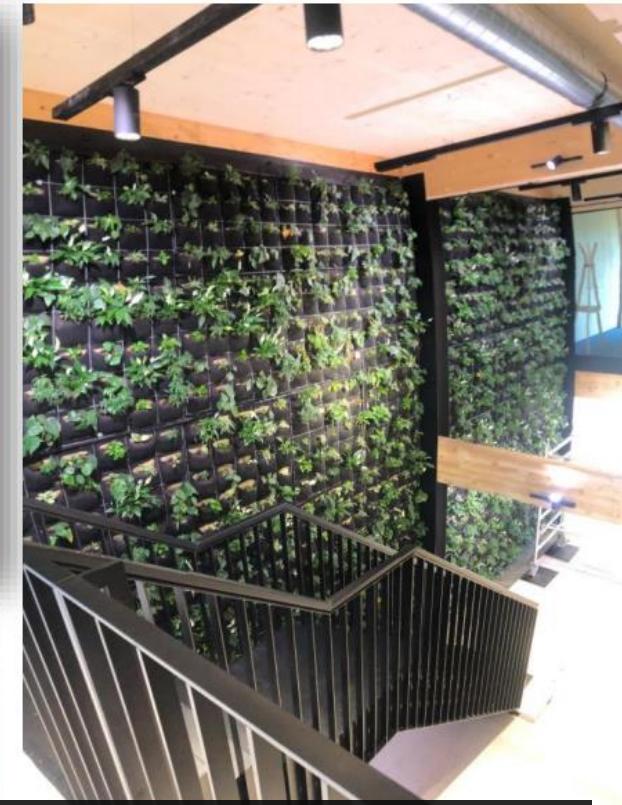
calculüs

VISIE CIRCULAIR BOUWEN

- 1) Duurzame materialen
- 2) Energieneutraal
- 3) Modulaire werkplekken
- 4) Natuurlijk licht en groen
- 5) Demonteerbaar ontwerp
- 6) Digitaal bouwmodel (BIM)
- 7) Innovatief BMS systeem
- 8) Circulaire businessmodellen

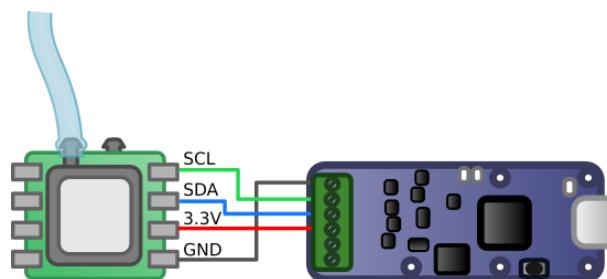


BEDRIJF:
CALCULUS



CONNECT

PROTOCOLS



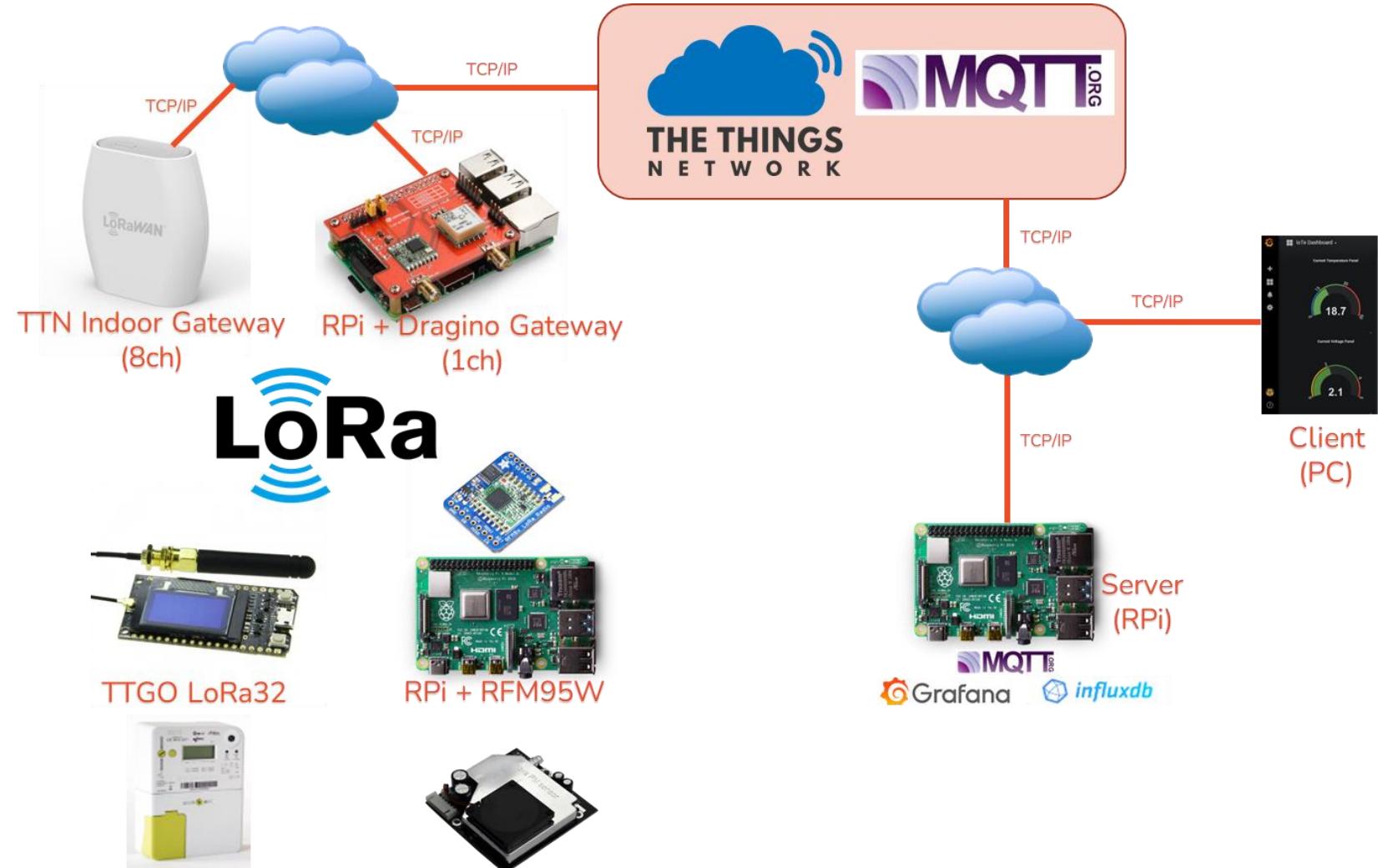
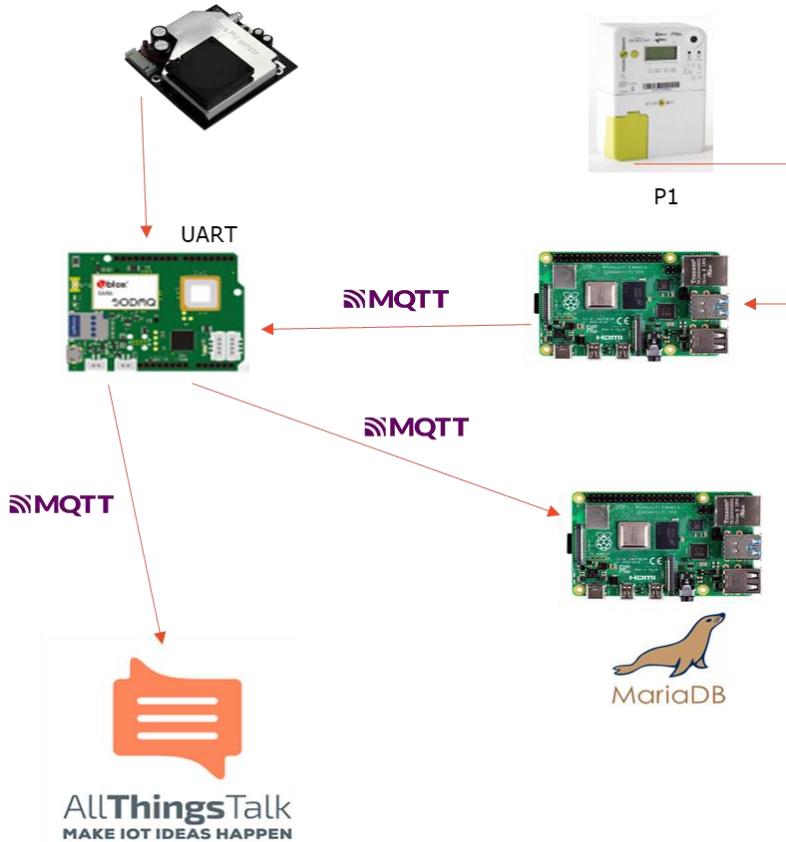
WIRELESS



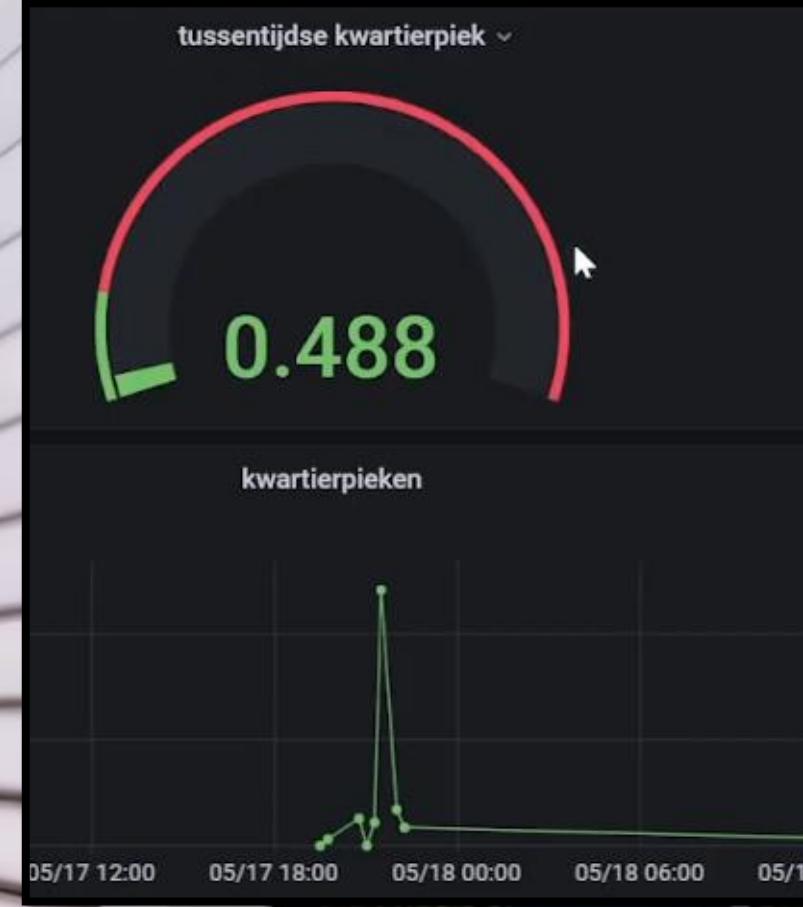
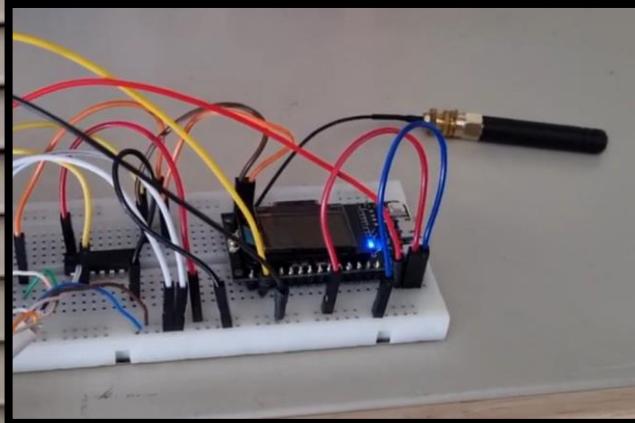
RADIO-FREQUENCY



PROTOCOLS



WIRELESS



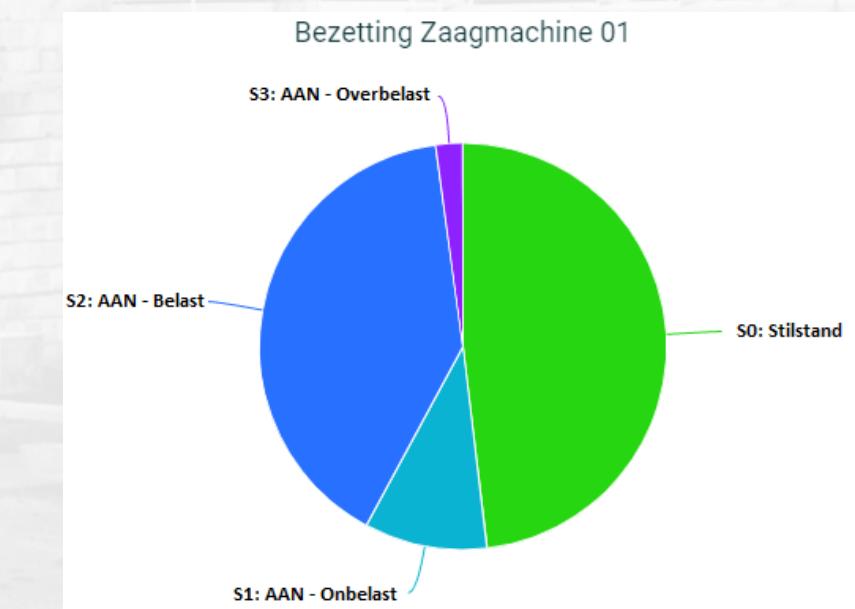
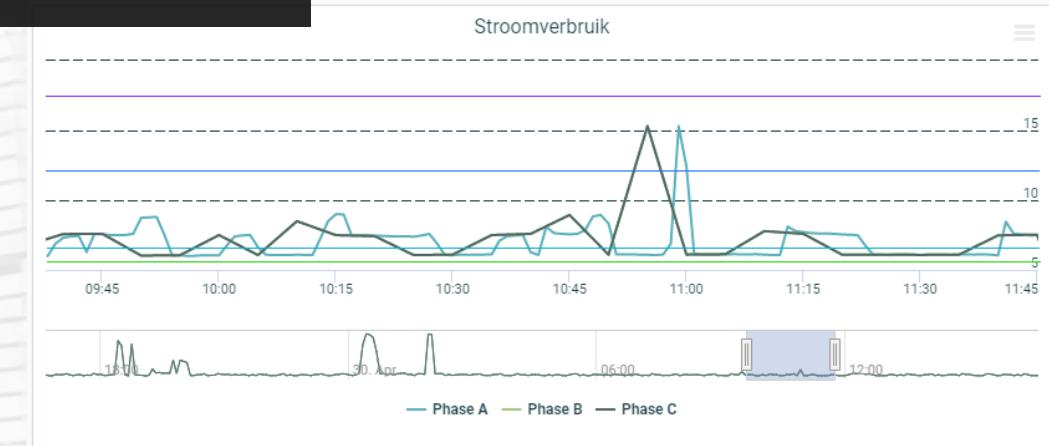
WIRELESS: LORAWAN

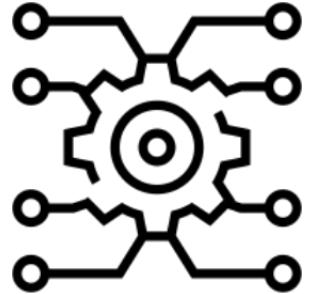
Machinepark (7 machines)

- Energie monitoring
- OEE o.b.v. stroomverbruik
- Predictief onderhoud machines

Resultaten

- 15% besparing op energie (€18.850)
→ Balancering machines, gebruik, sluimer
- Inzichten op machinebezetting / performantie



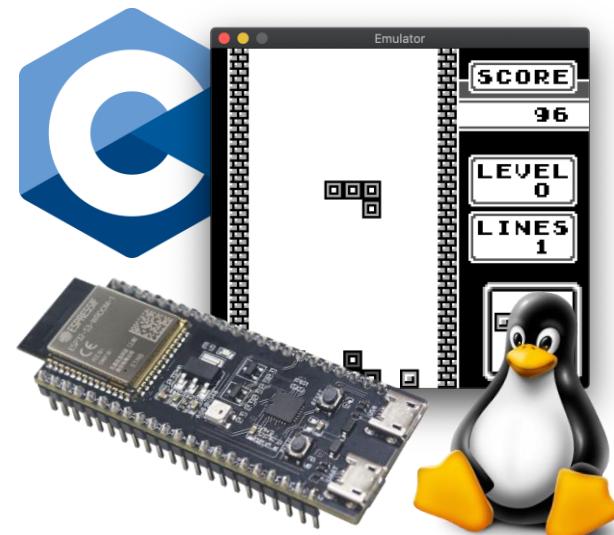


COMPUTE

HIGH-LEVEL

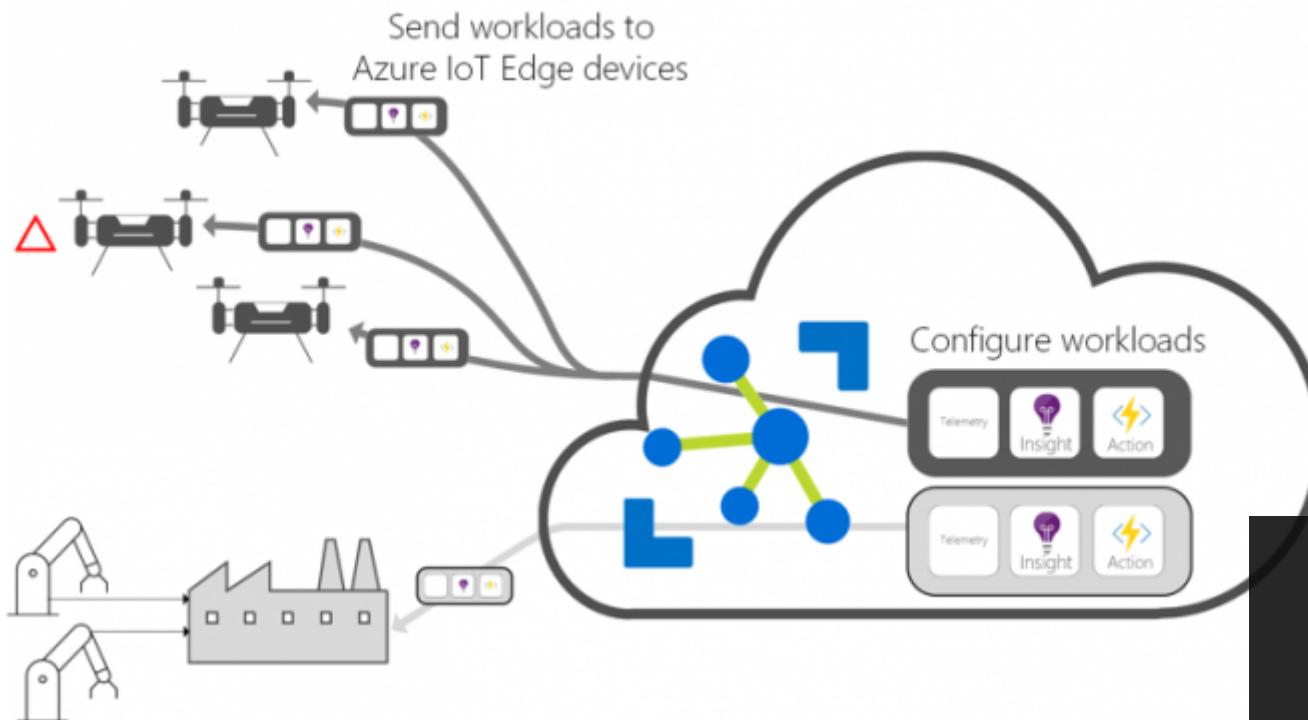
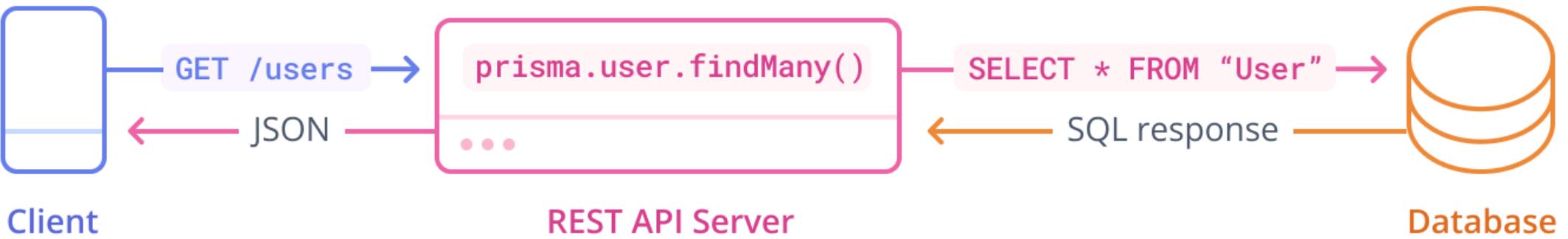


LOW-LEVEL



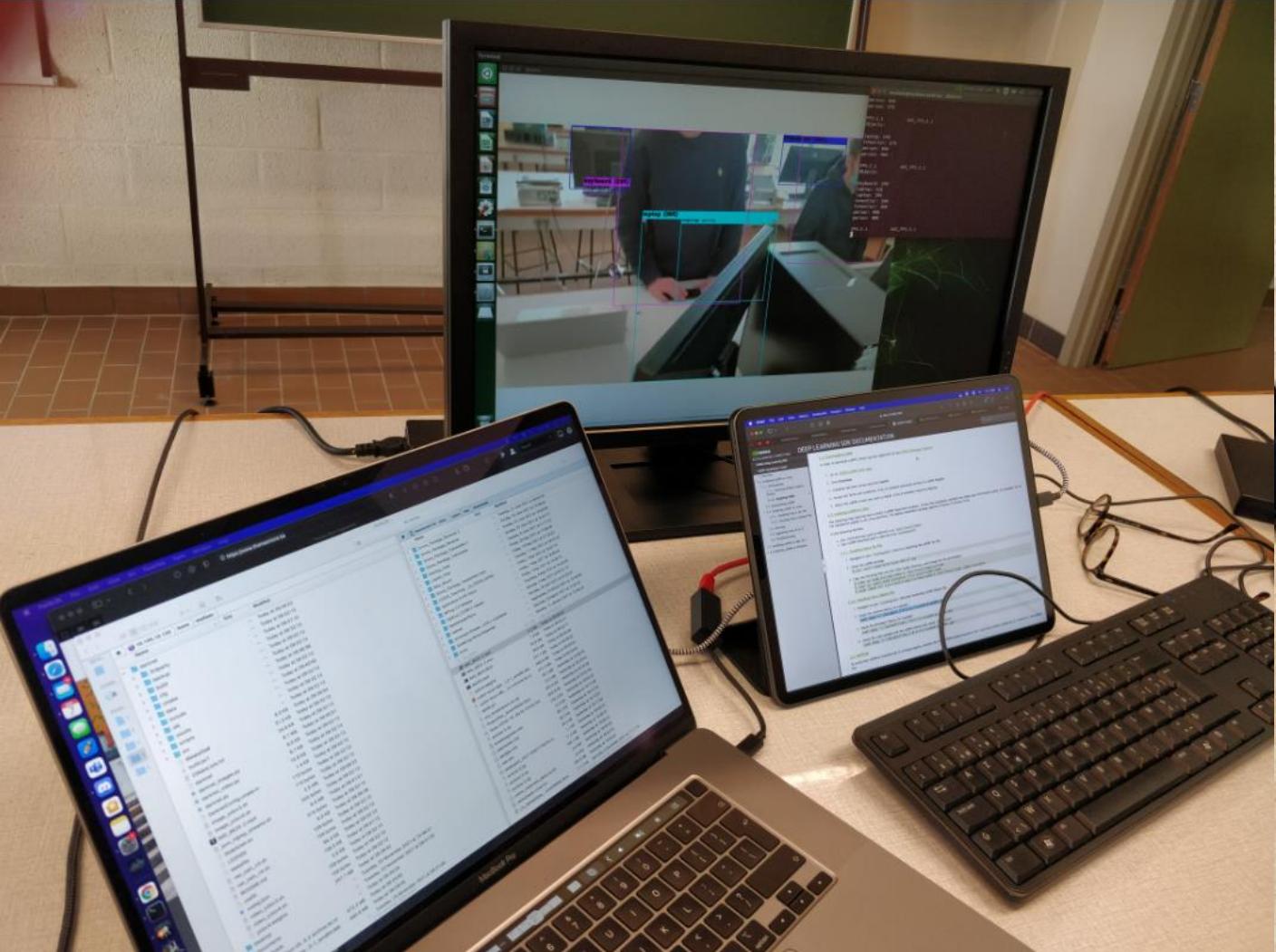
EMBEDDED AI



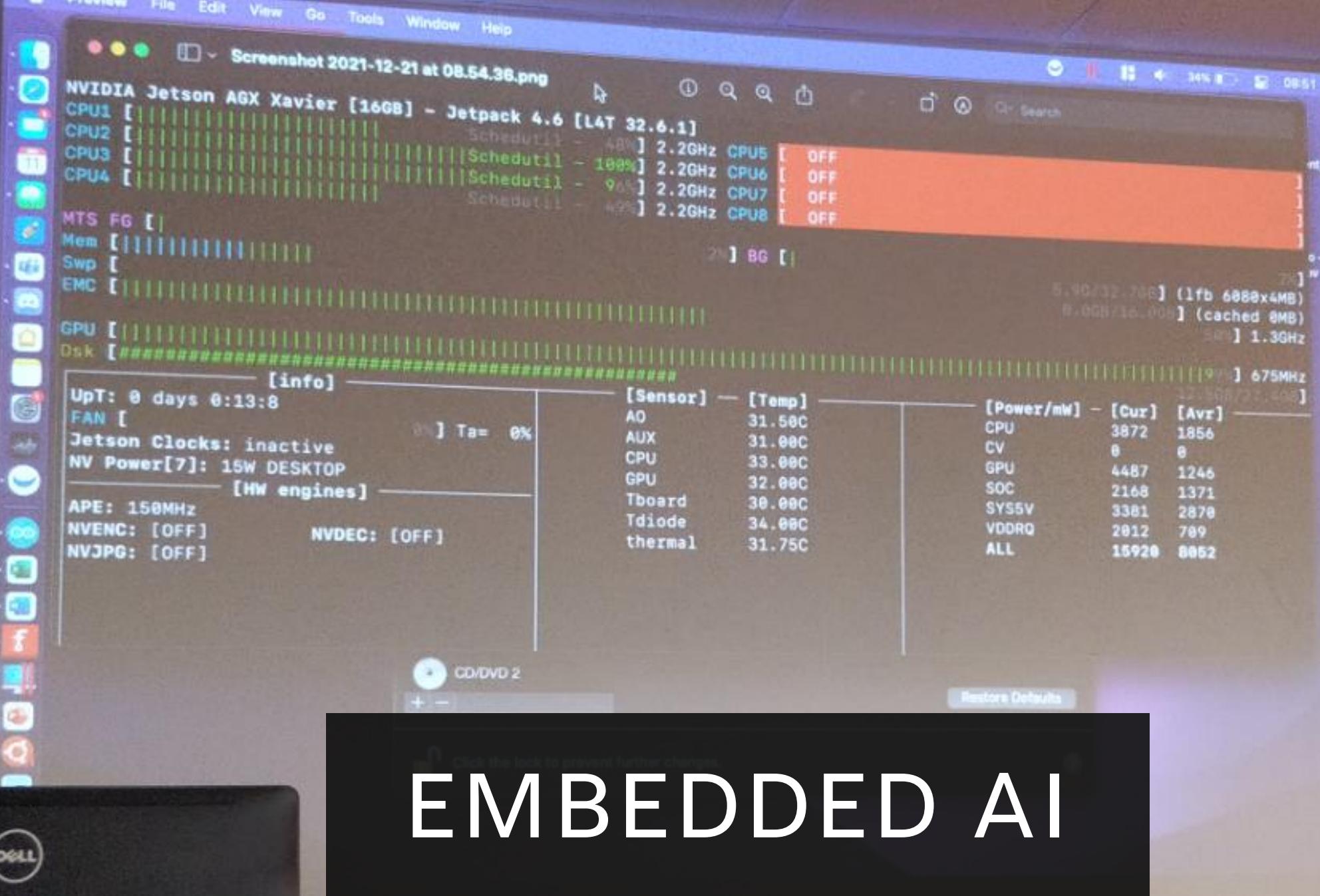


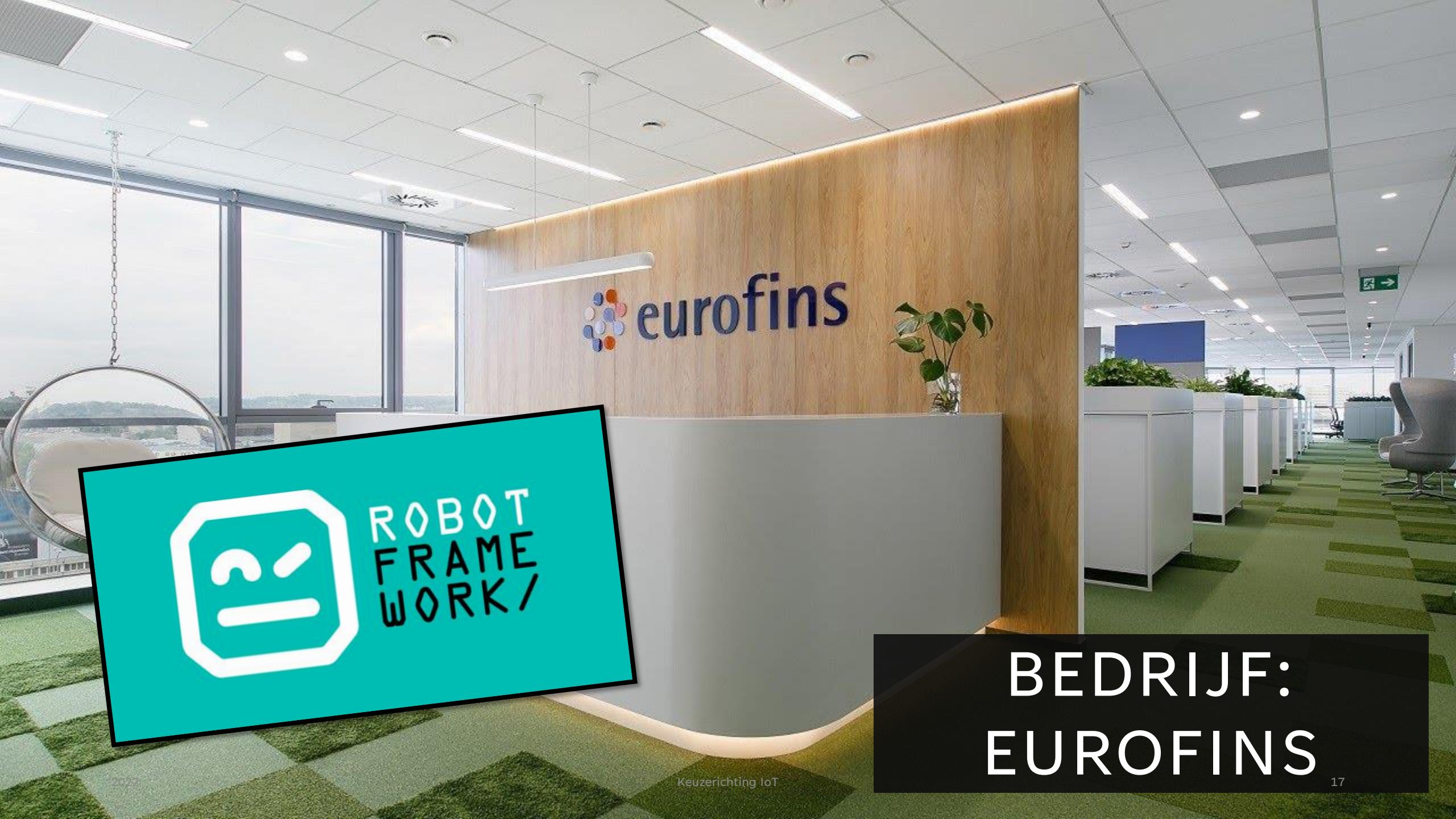
```
@app.get("/")
def read_root():
    return {"Hello": "World"}
```

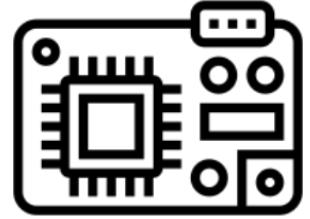
HIGH-LEVEL



EMBEDDED AI





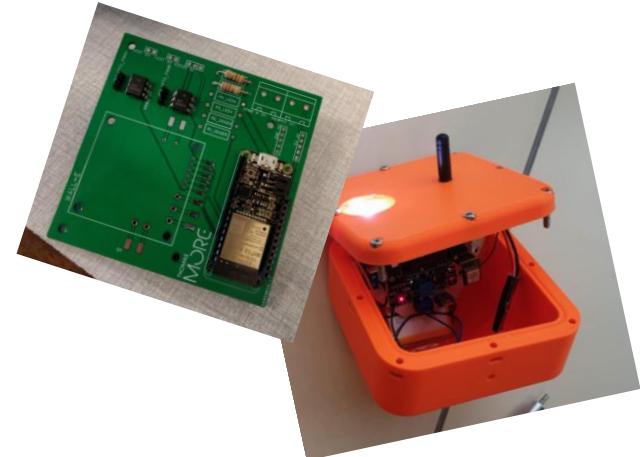


CONTROL

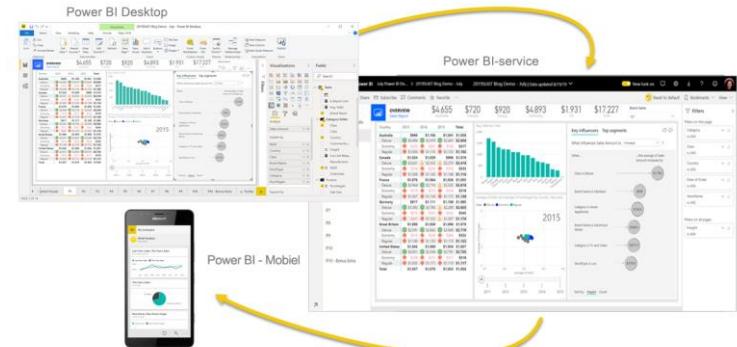
SMART
ENVIRONM.

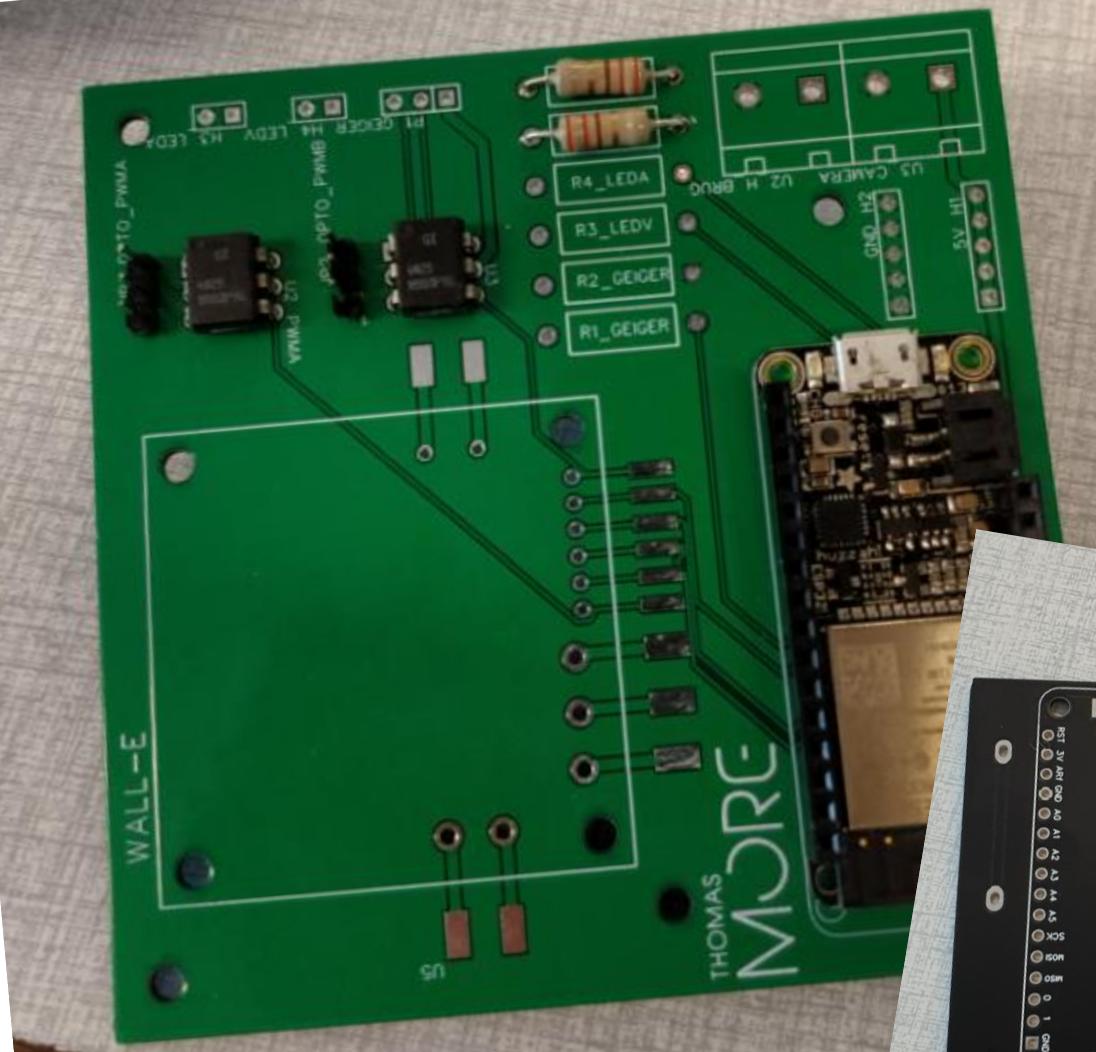


EMBEDDED
DEVICES

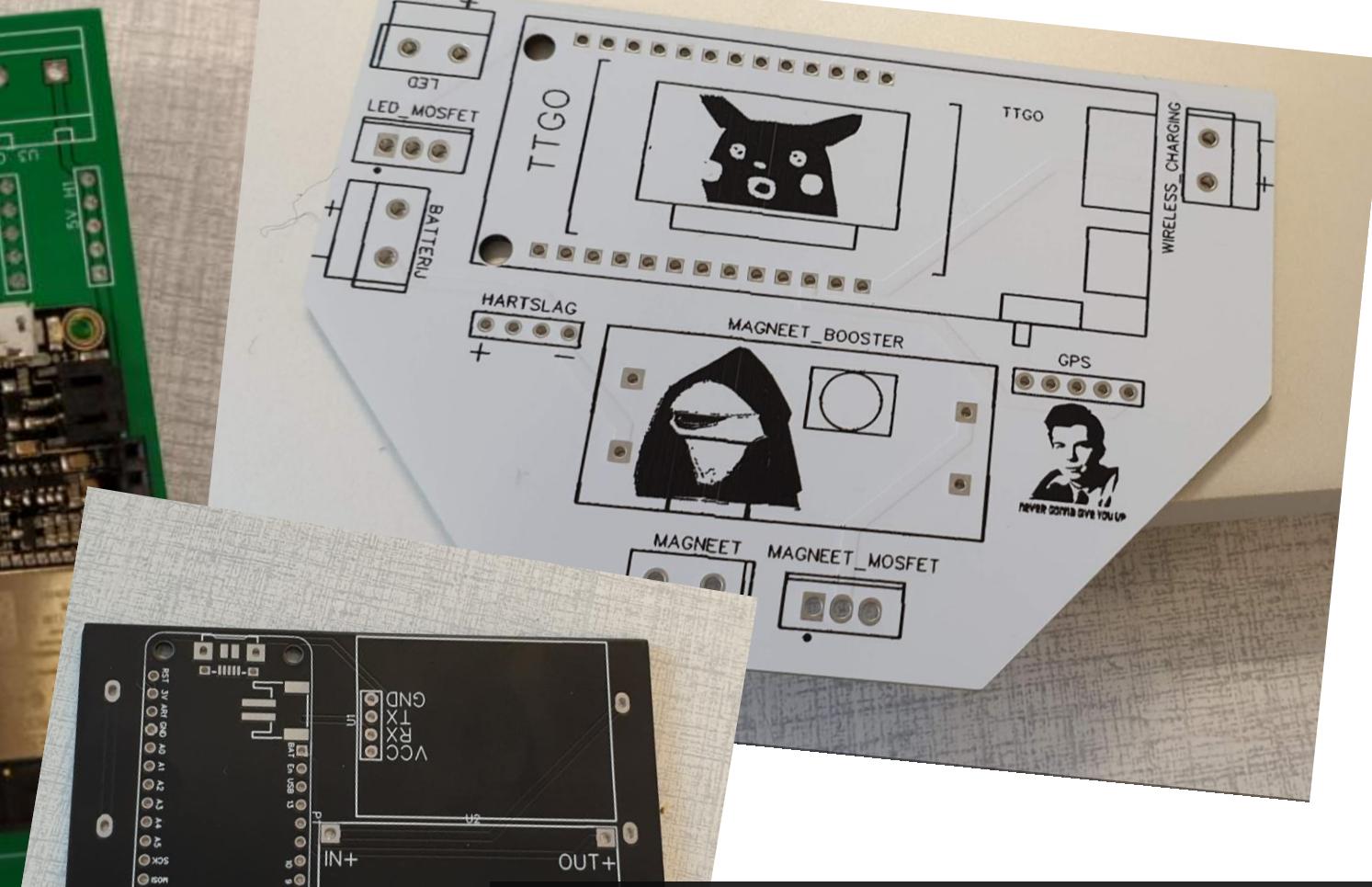


DASHBOARDS



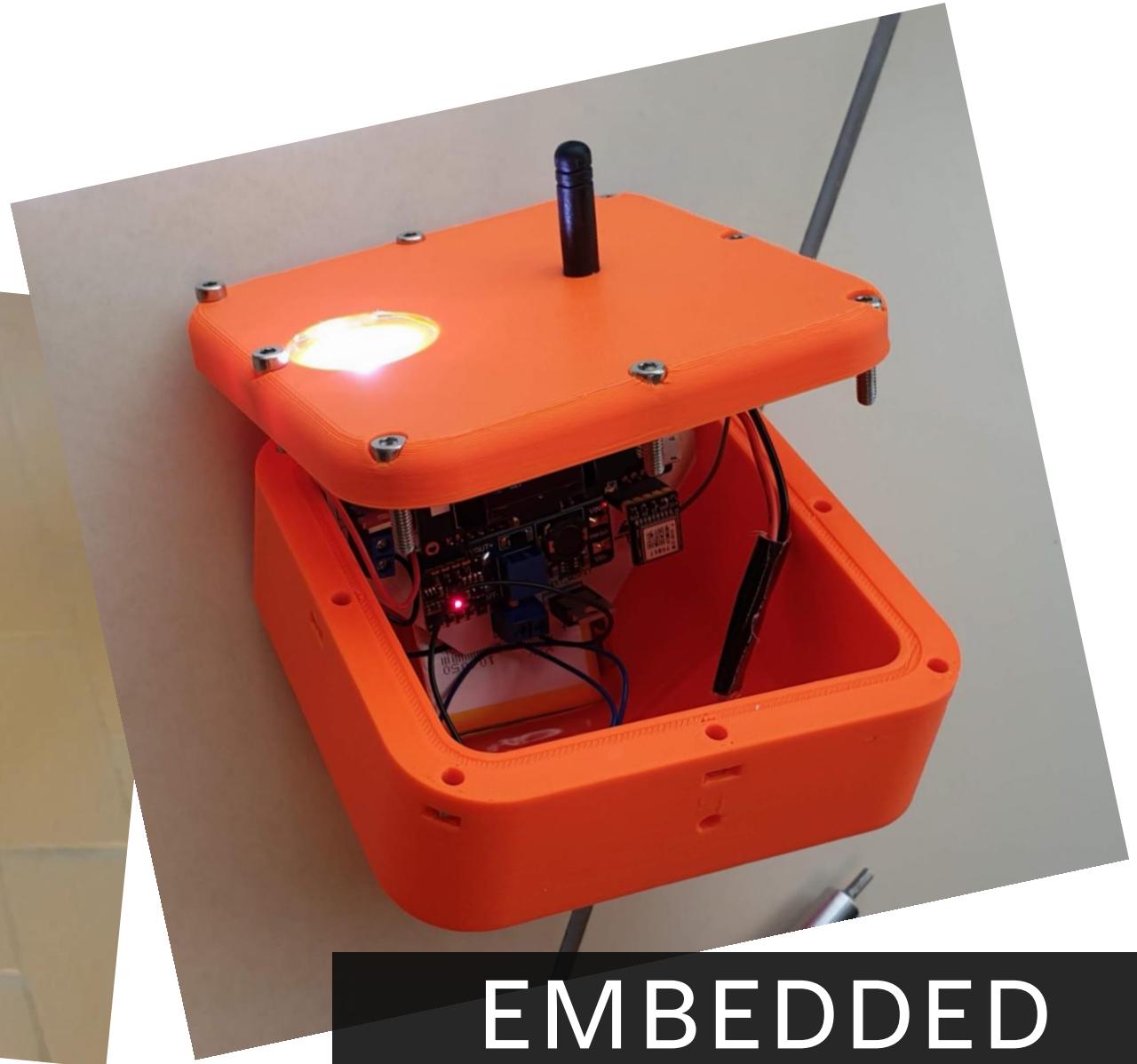
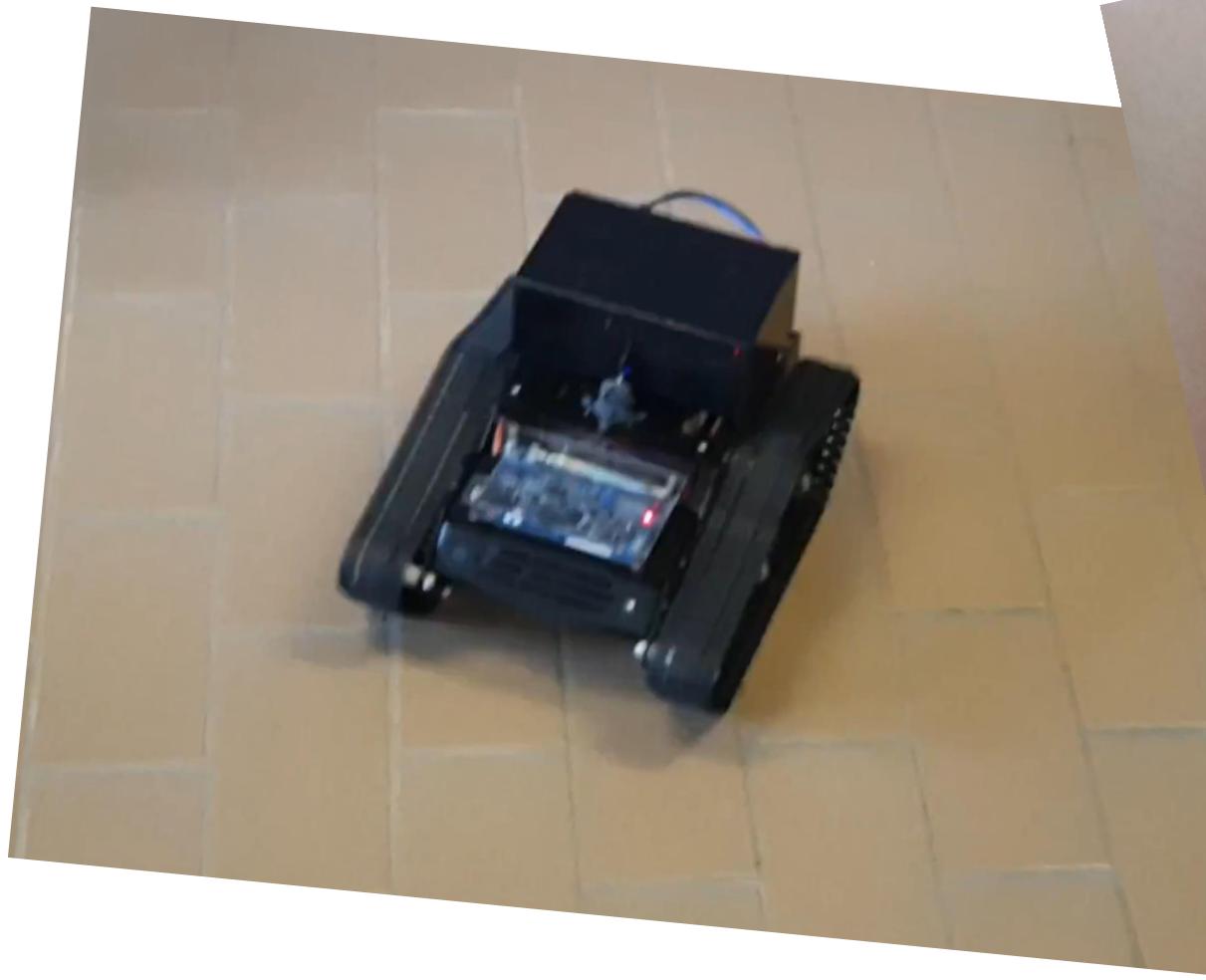


2022

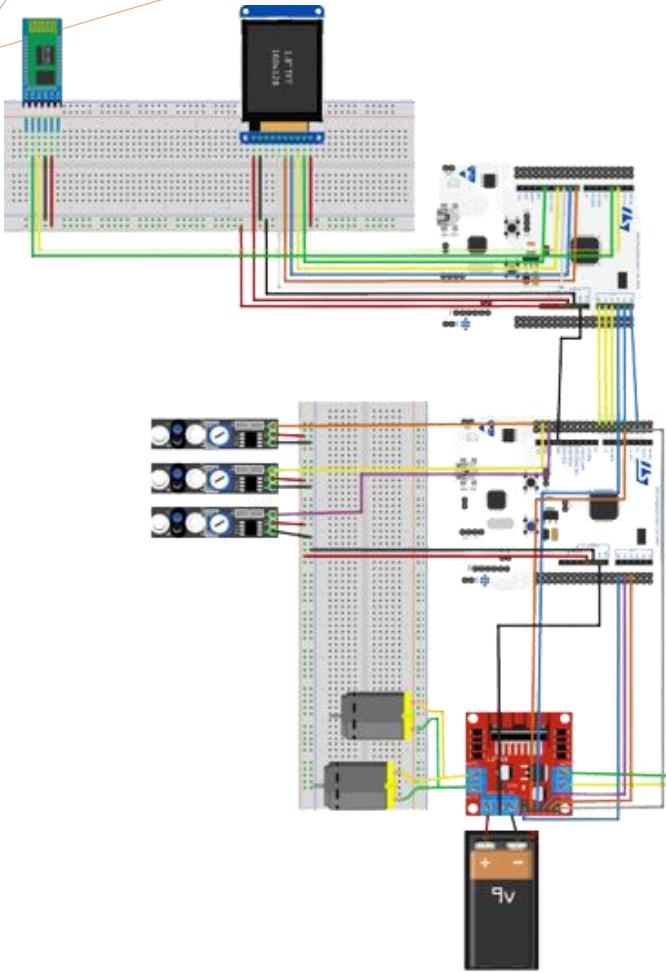


Keuzerichting IoT

EMBEDDED DEVICES



EMBEDDED DEVICES

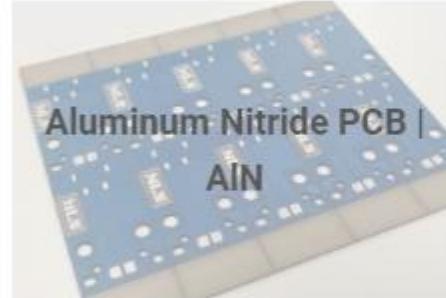
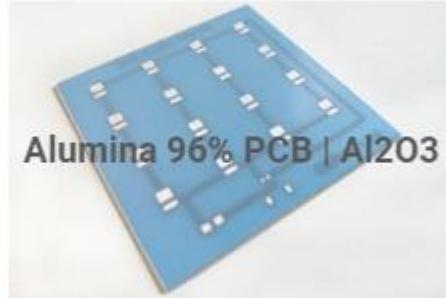


Technology
Arts Sciences
TH Köln

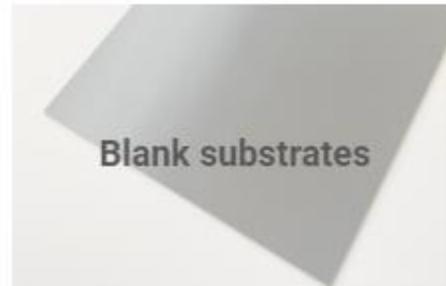
THOMAS
MORE

INTERNATIONAL:
KEULEN

Our Ceramic PCB solutions



Our Ceramic substrates solutions



EMBEDDED
SYSTEMS ENGINEER

IOT (CLOUD)
DEVELOPER / ARCHITECT

DATA ENGINEER /
ANALYST IOT

EMBEDDED AI
DEVELOPER

JOBS?

Embedded System Engineer

Magics is now looking for an **Embedded System Engineer** to join its team. At Magics, we have a family-like warm working environment, and our mission is developing technologies to enable intelligent and reliable machines for a smart and sustainable world. If you'd like to be part of us, please send your CV to hr@magics.tech, and we will contact you.

Key qualifications

- Master's or Bachelor's degree in electronics engineering or computer science.
- Excellent programming skills of C and C++.
- Hands-on experience with micro-controllers (e.g., ARM, RISC-V) and embedded operating systems.
- Experience with low-power wireless protocols such as BLE, 6LoWPAN, LoRa, and NB-IOT is a plus.
- Experience with Python programming is a plus.
- Experience with Robot Operating Systems (ROS) is a plus.
- Good communication skills in English.

[CAREERS](#)[LET'S TALK](#)

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DEVELOPER / ARCHITECT

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ANALYST IOT

EMBEDDED AI
DEVELOPER

JOBS?

Your spacesuit

As IoT Developer at Sirus you are flexible and you have a hands-on mentality. **You are eager to learn and pass on your technical knowledge.** It is written in the stars that you'll help Sirus and its businesses land on the moon.

- You preferably have a master in computer sciences or engineering. If not, you possess a bachelor with IT specialization and with substantial work experience in professional software development.
- You have experience in programming languages Python and C#, as well as a good knowledge and overview of the Python and .NET packages.
- You are proficient in team based software development processes (e.g. agile/scrum) and version control/testing/deployment tools (e.g., Git, JIRA, Jenkins, Azure DevOps).
- You have knowledge of the Microsoft Azure services with focus on IoT (link: <https://sirus.be/smart-cities/>), (IoT Hub, Azure IoT Edge, Microsoft Data Lake and Storage accounts), Streaming Analytics, and App services. Microsoft Certifications is an advantage.
- You have knowledge of database design, preferably MS SQL and PostgreSQL.
- You are pragmatic with an eye for detail and quality, you are open minded and solution-oriented and you possess a sense of initiative.

You have a good knowledge of English, both written and spoken.



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EMBEDDED AI
DEVELOPER

JOBs?

Data Analyst - IoT device connectivity

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Major Responsibilities:

- Transform business stakeholder questions and issues into clear and unambiguous technical requirements
- Troubleshoot technical issues on data coming from devices
- Perform queries to optimize the data from/to the devices
- Control and monitor the over the air updates
- Support divisions for technical requests about the data flow
- Support the Test Engineer to implement test scenarios in the field

You will work in the exiting domain of the **Industrial Internet of Things** within an international multidisciplinary environment. In this multidisciplinary environment you will see the results of your work from the data it starts with. You will work closely together with specialists from different disciplines like embedded software developers, software engineers, hardware experts, non-cellular technology experts, product managers, network providers and suppliers of modern technologies. You will solve problems and challenging products.

What we expect of you?

Competence requirements:

- Genuine interest in the world of IoT and telecom
- Knowledge of SQL, Python

JOBs?

EMBEDDED
SYSTEMS ENGINEER

IOT (CLOUD)
DEVELOPER / ARCHITECT

DATA ENGINEER /
ANALYST IOT

EMBEDDED AI
DEVELOPER

AI & ROBOTICA DEVELOPER - C++? Tensorflow

Eyetech Solutions
Permanent contract

AI & Robotica Developer - Profiel:

- Je hebt interesse in **AI & Robotica** en je kan je goed uitdrukken in het **Nederlands** en **Engels**.
- Je hebt genoten van een hogere opleiding zoals **bachelor** of **master**.
- Technologieën zoals **.C#, C++, tensorflow & OpenCV** vormen dankzij je ervaring geen probleem voor jou.

Offer

AI & Robotica Developer - Aanbod:

- Je krijgt de mogelijkheid om een mooi bruto jaarsalaris te verdienen dat rond **60 000 euro** zal liggen, dit is afhankelijk van je kennis en ervaring. hierdoor ge je jezelf extra kunnen verwennen nu dat de horeca terug open is.
- Als medewerker van dit bedrijf heb je recht op een **wagen** en een **tankkaart!** Zo ben je nooit meer gebonden aan vaste reistijden en heb je volledige controle over je verplaatsingen.

ok heb je recht op **extra legale voorwaarden zoals: laptop, groeps & capitalisatieverzekeringen, maaltijdcheques, ecocheques, enz,...** Allemaal kosten

u gespaard blijven, hierdoor ga je nog meer kunnen genieten van jouw loon!

ook micro management? Geen probleem! In dit bedrijf krijg je de nodige

nie en verantwoordelijkheid zodat jij optimaal kunt functioneren.

te kom je terecht in een aangename **moderne werkomgeving** met een

ader, jouw welzijn staat in dit bedrijf centraal. Dankzij de toffe collega's en

rksfeer zal de tijd hier dan ook vliegen!



BEDANKT!

Michiel Verboven

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