

Instead of
artificial intelligence,
let's talk about math and statistics!

**OPEN
SOURCE**

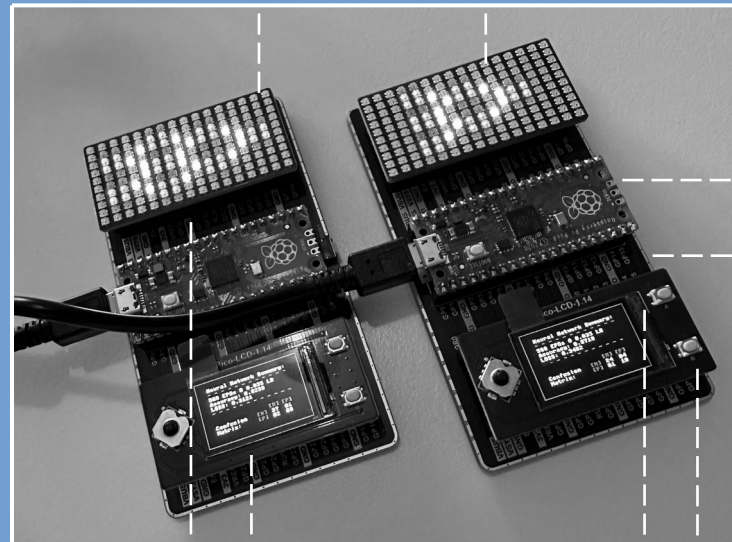
**LERNE
PYTHON**

KI-ENNA

(E)IN (N)EURONALES (N)ETZ
ZUM (A)USPROBIEREN

8 Neurons @ 4 Layer

6 Neurons @ 3 Layer



Raspberry Pi Pico

GPIO Expander Board

LED-Matrix

LCD-Display

A

B

**TRAINIERE
DEINE KI**

AB 16+ JAHREN

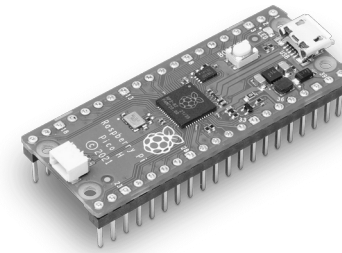


Instead of

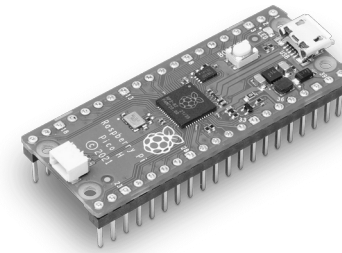
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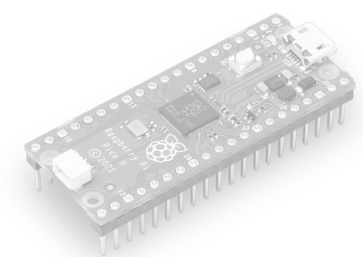
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Raspberry Pi Pico

* 133 MHZ * 264 KB RAM * 2 MB FLASH

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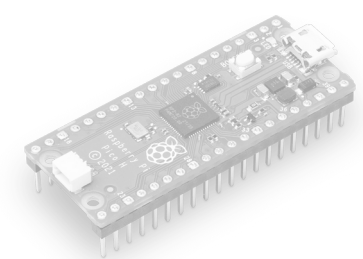


DIABETES DATENSATZ

Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome
6	148	72	35	0	33.6	627	50	1
1	85	66	29	0	26.6	351	31	0
8	183	64	0	0	23.3	672	32	1
1	89	66	23	94	28.1	167	21	0
0	137	40	35	168	43.1	2288	33	1
5	116	74	0	0	25.6	201	30	0
3	78	50	32	88	31	248	26	1
10	115	0	0	0	35.3	134	29	0
2	197	70	45	543	30.5	158	53	1
8	125	96	0	0	0	232	54	1
4	110	92	0	0	37.6	191	30	0



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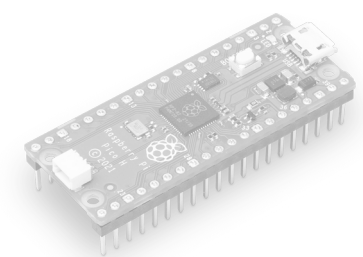
NEURONALE NETZE

- A) 3 Layer mit insg. 6 Neuronen
- B) 4 Layer mit insg. 8 Neuronen

Visualisierung mittels RGB Matrix:



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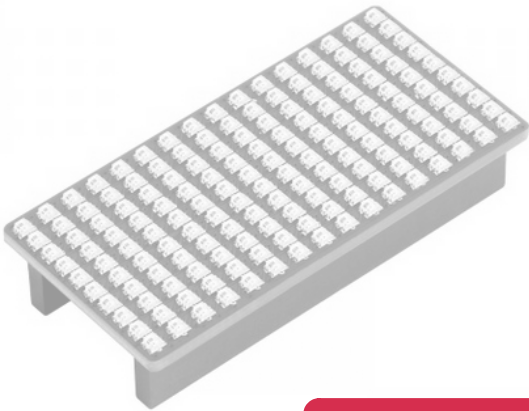
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EINFACHE BEDIENUNG



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[A] 6 NEURONS / TRAIN

EINFACHE BEDIENUNG



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EINFACHE BEDIENUNG



[A] 6 NEURONS / TRAIN



[B] 8 NEURONS / ABOUT

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[PUSH] REBOOT

EINFACHE BEDIENUNG



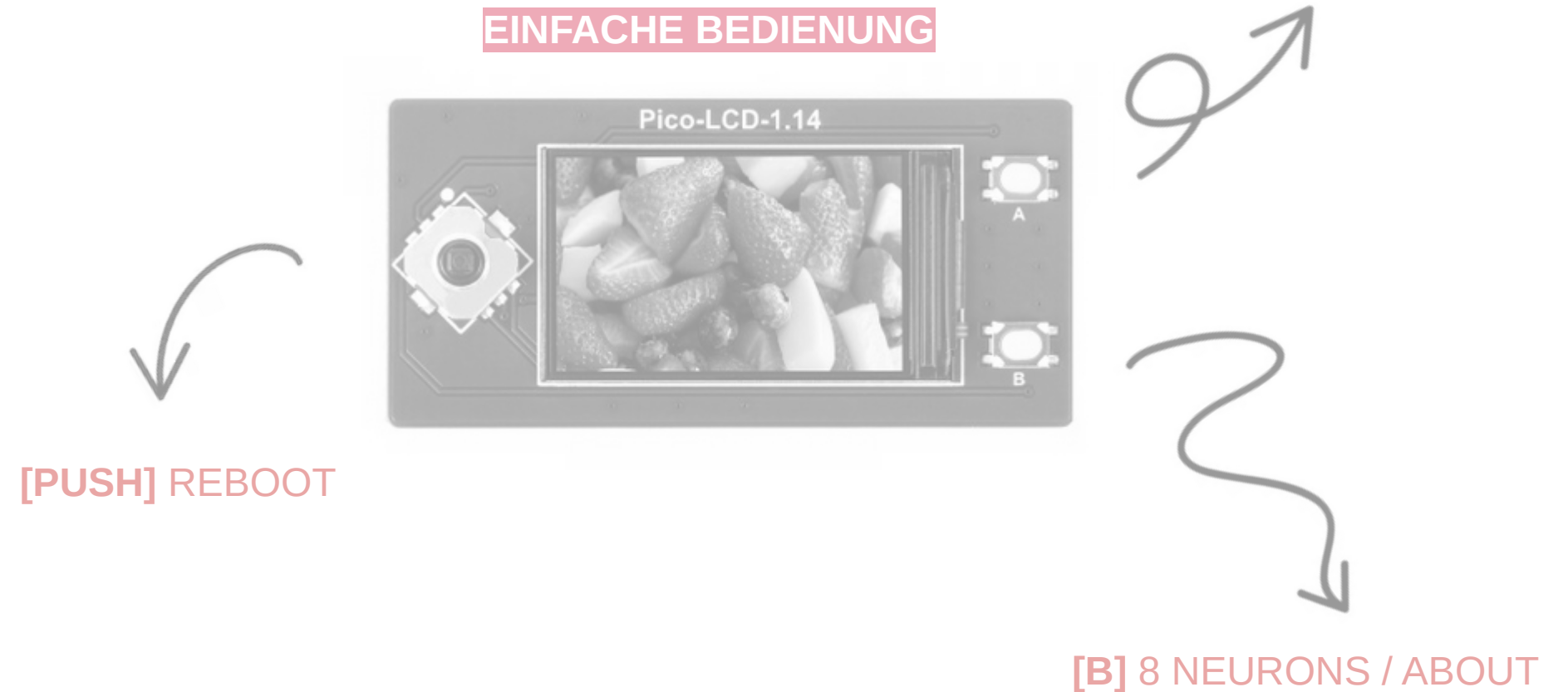
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[B] 8 NEURONS / ABOUT

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Trainiert **KI-ENNA** mit einem Modell Eurer Wahl!

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[A] 6 NEURONS / TRAIN

EINFACHE BEDIENUNG



[PUSH] REBOOT

[B] 8 NEURONS / ABOUT

TRAINING / VALIDIERUNG

Predictions with 8 neurons:

```
[[0.9730927, 0.1017353, 0.06202335, 0.4572562, 0.1103432, 0.05771559, 0.7471498, 0.8194352, 0.2919307, 0.3960132, 0.5808029, 0.9760417, 0.2294444, 0.1656195, 0.06917126, 0.1052484, 0.8611004, 0.05771559, 0.3303518, 0.2326374, 0.71048, 0.543425, 0.2801571, 0.1010159, 0.0674166, 0.4290749, 0.05771559, 0.9254408, 0.09566004, 0.09817339, 0.2696396, 0.2201122, 0.1122275, 0.4726285, 0.08007254, 0.818479, 0.4317611, 0.06139551, 0.3807044]]
```

```
[1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0]
```

Accuracy: 0.9230769

Confusion Matrix:

```
[27, 1]
```

```
[2, 9]
```

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EINFACHE BEDIENUNG



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