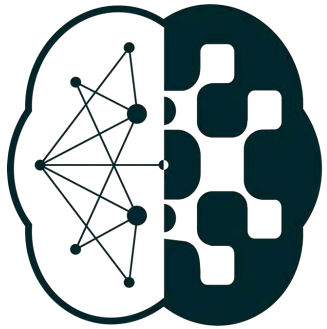
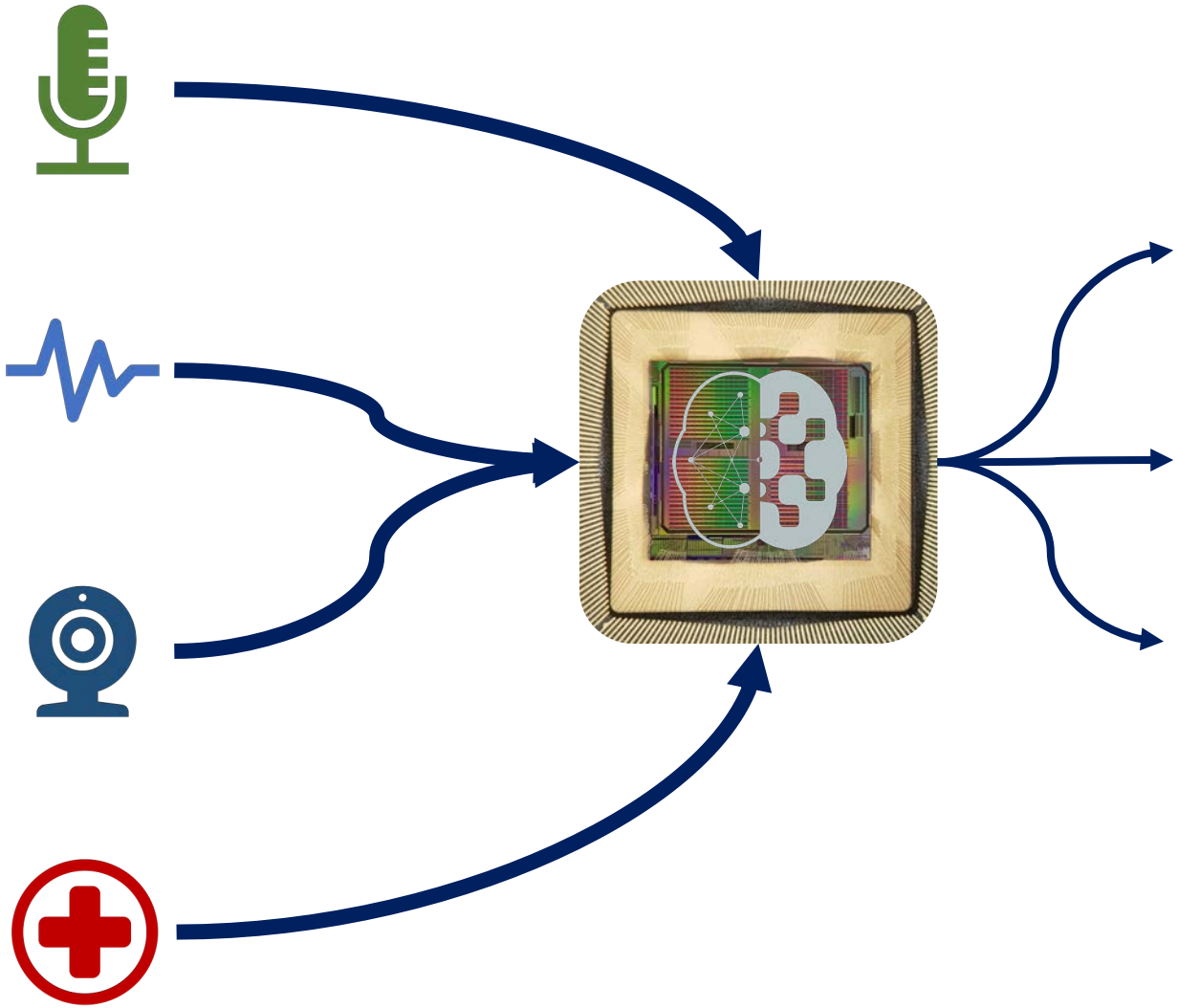


SynSense

Hardware / IP / Applications
Ultra-low-power compute
Sensory processing
At the edge

Neuromorphic Smart Sensors



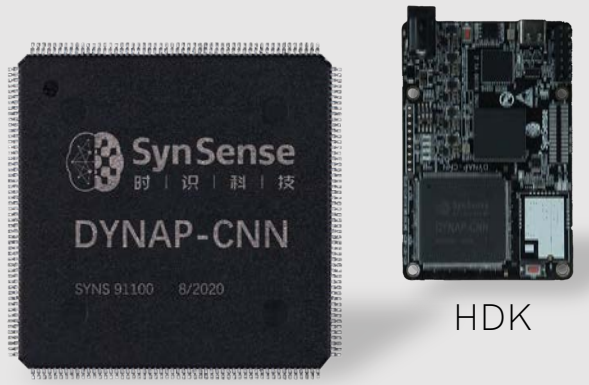
- Highly informative output / low bandwidth output
- Smart condition detection
- Smart wake-up
- Continuous monitoring
- Low latency → <200 ms
- Low power → <10 mW

Hardware families

Vision processing with high speed, low power

DynapCNN

Scalable CNN cores



HDK

Smart visual wake-up
Object trakcing
Presence detection

Speck

Integrated vision sensing

HDK

Real-time motion estimation
Behaviour detection
Gesture interaction

Natural signal processing

Xylo

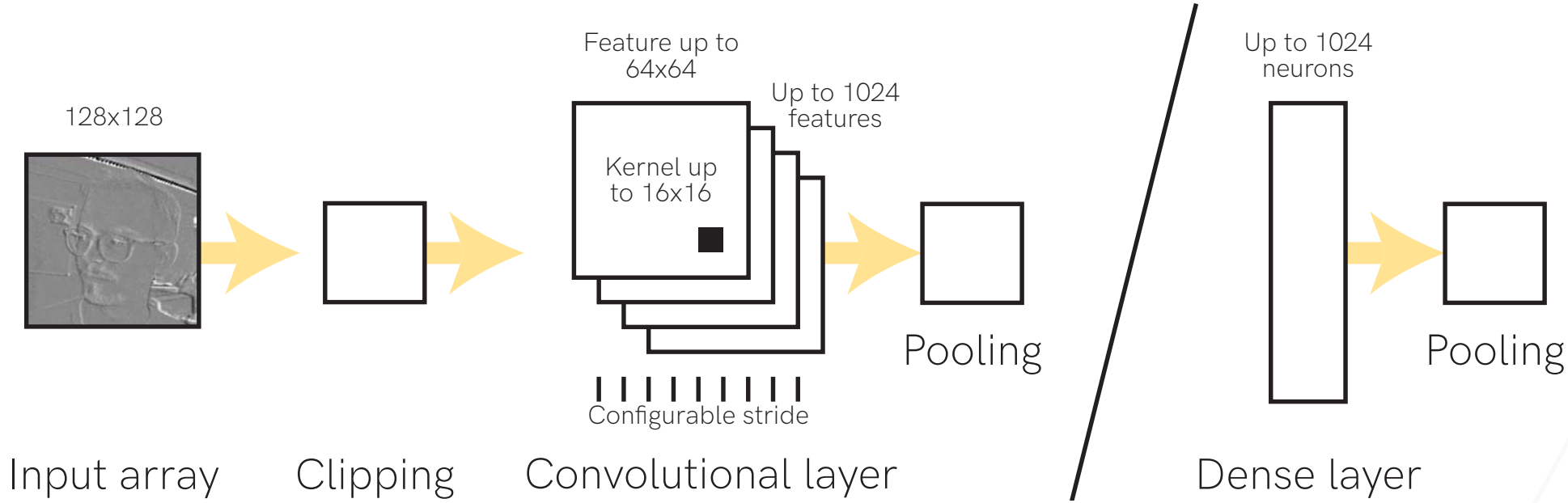
Ultra-low-power

HDK

Audio processing
Bio-signal processing
IMU processing
Condition monitoring

Event-driven Vision Processing

- CNN-based processing stack — ML training of visual features
- Event-driven computing — Energy-efficient processing



SynSense ❤️ Open Source

SynSense

Rockpool: SNN training and deployment

- github.com/synsense/rockpool

rockpool.ai

Tonic: Data sets and data wrangling for SNNs

- github.com/synsense/tonic

Tonic

Sinabs: SNN training and deployment for vision processing

- sinabs.ai

sinabs

Sinabs CNN Training Pipeline

- Open-source Python library
- Training, Testing, Deploying SNN applications
- Industry-standard PyTorch base
- Supports weight-transfer and BPTT training approaches

sinabs.ai

python™ PyTorch