EDGE IMPULSE

RA Ecosystem Partner Solution

Edge Impulse Studio

Solution Summary

Edge Impulse is an integrated cloud environment that enables end-to-end development of AI/ML solutions for embedded products. Edge Impulse Studio and APIs enable easy data collection and transformation, training, testing, verification and deployment of ML models for a wide range of industrial and consumer applications. Out-of-the-box support is now available for the CK-RA6M5 cloud development kit).
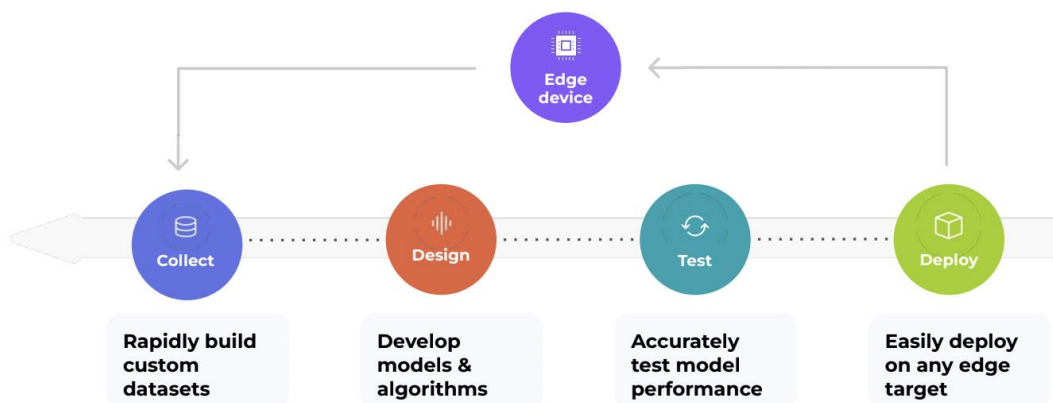
Features / Benefits

- Easily label event data collected directly from the CK-RA6M5 onboard sensors
- Optimize model hyperparameters for specific memory and latency requirements with Edge Impulse's EON Tuner™ AutoML tool
- Easily deploy trained ML classification, regression and anomaly detection models based on environmental and inertial data

Diagrams / Graphics

Develop edge ML applications with Edge Impulse

The infrastructure and integrations your data science and ML teams need.

Edge device

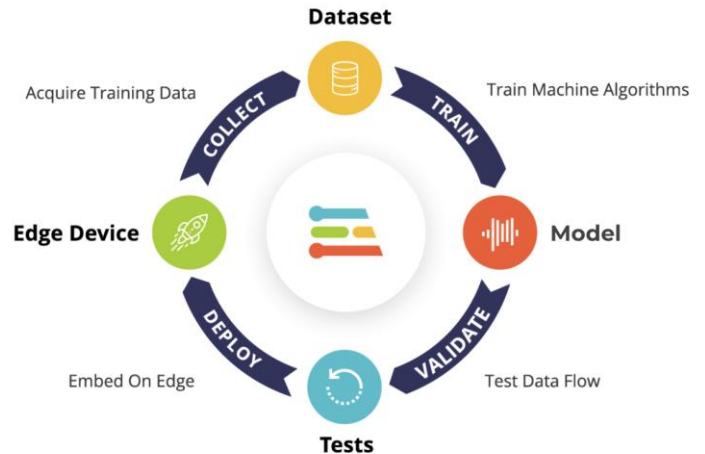| Collect	Design	Test	Deploy
Rapidly build custom datasets	Develop models & algorithms	Accurately test model performance	Easily deploy on any edge target

Target Markets and Applications

- Asset tracking, monitoring and visibility
- Anomaly detection for predictive maintenance
- Activity / pattern recognition in consumer products

www.edgeimpulse.com

EDGE IMPULSE

We put ML into real products.

Edge Impulse is the leading development platform for machine learning on edge devices, free for developers and trusted by enterprises.

Our platform and solutions offering allows for the training, testing and deployment of AI / ML algorithms to edge hardware including ultra-low power MCUs, MPUs and GPUs, across any data type.

How Edge Impulse solves top edge ML challenges for customers like these:

99% of sensor & device data is discarded	Accelerate next gen IoT products and solutions turning data from any edge device into actionable insights
Current ML tools are not designed for edge	Enable developers enterprise-wide to rapidly build ML solutions natively for edge devices, amplifying your ML experts
87% of AI/ML projects fail due to infrastructure complexity	MLOps infrastructure from data collection to edge deployment, for enterprise data science and ML teams, with leading integrations
Difficulties in building smart product experiences	Build innovative experiences with ML with ease, leading to growth and competitive differentiation

Key differentiators:

- **Low-to-no code platform** – does not require deep AI / ML expertise to use
- **Open source** – no black box approach to algorithm development and no royalties
- **Deployment agnostic** – run our algorithms on any edge hardware of choice, even older hardware in the field
- **Sensor agnostic** – the platform can handle all types of data including sensor, audio and vision data
- **API driven** – Connect Edge Impulse to any pre-existing data pipelines including AWS, Google Cloud and Azure

Trusted by enterprise customers globally, to get to market faster.

Industries		Applications
Agriculture	Appliances	Asset tracking & monitoring
Buildings	Environment	Human interfaces
Health	Industry	Predictive maintenance
Infrastructure	Wearables	