PRODUCT BRIEF

Computer Vision in DEEPCRAFT™ Studio

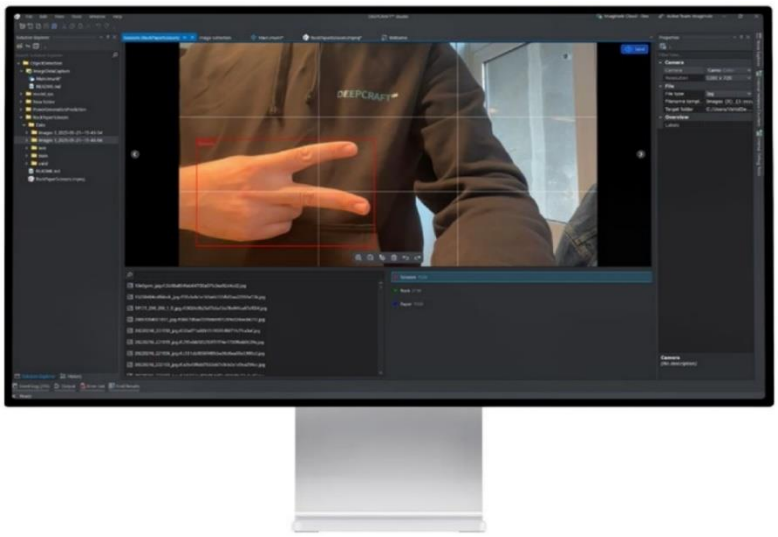
Support for building custom vision machine learning models for the edge

DEEPCRAFT™ Studio, the end-to-end development platform for building Edge AI models, now supports the entire process of building computer vision models optimized for edge devices.

The inherent size needed to process images has long prevented models running on the edge. With the advent of powerful new microcontrollers (MCUs) containing neural processing units (NPUs) this is changing, and DEEPCRAFT™ Studio now streamlines the process of making vision models. DEEPCRAFT™ Studio reduces the amount of time spent on data labeling, and automatically applies a large host of data augmentations during training. The code generated is also optimized for Infineon's PSOC™ Edge MCU and designed to be seamlessly integrated, drastically reducing time spent on porting.

Computer vision in DEEPCRAFT™ Studio is targeted towards any developer who wants to evaluate and build models for the edge. Due to the built-in Ultralytics YOLO model training pipeline, there is no need to be a domain expert in order to build vision-based Edge AI models.

For more information visit DEEPCRAFT™ Edge AI Solutions and DEEPCRAFT™ Studio.



Key features

- Supports making models for Object Detection
- Enables users to make custom models, detecting whatever objects they wish by simply uploading data
- Supports labeling images easily through the tool
- Leverages Ultralytics YOLO models directly in DEEPCRAFT™ Studio

Key benefits

- Easy to integrate and deploy onto consumer products
- Reduces the workload and time needed to develop production ready Edge AI models
- Streamlines the processes of data annotation, preprocessing, model creation and evaluation
- Free cloud-based model training through the software
- Easy to deploy on device

Key use cases

- People counting
- Animal detection
- License plate detection
- Plant disease detection
- Predictive maintenance
- Image Segmentation
- Face Identification
- Surface Detection
- Pose Estimation

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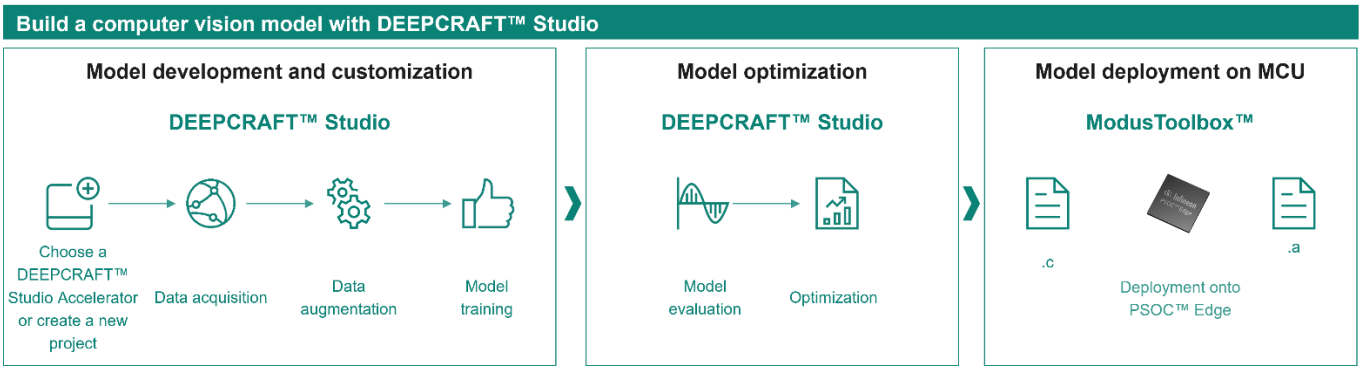
Specification and compatibility

Supported microcontrollers:	PSOC™ Edge MCUs
Data imports:	Supports YOLO, Coco and Pascal
Images:	Supports .jpg and .png
Supported hardware platforms:	PSOC™ Edge E84 Evaluation Kit, PSOC™ Edge E84 AI Kit
Compatible software products:	DEEPCRAFT™ Studio (Windows)

Block diagram



Target applications

- Alarm and Security
- AR Devices / Smart Glasses
- Car Access Control
- Domestic Robot
- Drone and eVTOL
- Electric Forklift
- Humanoid Robots
- Mobile Robot
- Refrigerator and Freezer
- Security Camera and Video doorbell
- Smart Door Lock
- Vacuum Cleaner and Mops

Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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Public

Version: V2.0_EN
Date: 10/2025

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