

Ausschreibung

Projekttitel: **Racecount**
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Schuljahr: **2025/26** Klasse: **4AX**

VERSION	DATUM	AUTORIN/AUTOR	ÄNDERUNG
v1.0	16.12.2025	Nikola Cajic	Erstellung
v2.0	03.01.2026	Theo Hubinger	Fertigstellung und Fehlerkorrektur

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1 Wie erstellt man ein Objekterkennungsmodell mit Roboflow

1.1 Bilder aufnehmen

- DSLR-Kamera
 - Akku
 - Stativ
 - SD-Karte
- 3-Punkt-Beleuchtung

1.2 Roboflow anmelden

- Gehe auf roboflow.com
 - Registrieren

1.3 Projekt erstellen

- Create New Project
 - Project Type
 - Project Name
 - Annotation Group
- Create Public Project



Let's create your project.

Racecount > Public Car detection

Project Name Car detection	Annotation Group cars	Visibility <input type="radio"/> Private <input checked="" type="radio"/> Public	Licenses CC BY 4.0	Tool <input checked="" type="button"/> Traditional <input type="button"/> Rapid
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Project Type

Object Detection ☐ Bounding Boxes ☐ Counts ☒ Tracking

Identify objects and their positions with bounding boxes.

Classification ☐ Image Labels ☐ Filtering ☒ Content Moderation

Assign labels to the entire image.

☒ Single-Label ☐ Multi-Label

Instance Segmentation ☐ Polygons ☐ Measuring ☐ Odd Shapes

Detect multiple objects and their actual shape.

Keypoint Detection ☐ Skeleton Structure ☐ Pose Estimation

Identify keypoints ("skeletons") on subjects.

Multimodal ☐ Prompts ☐ Visual Question Answering ☐ Captions

Describe images using text pairs.

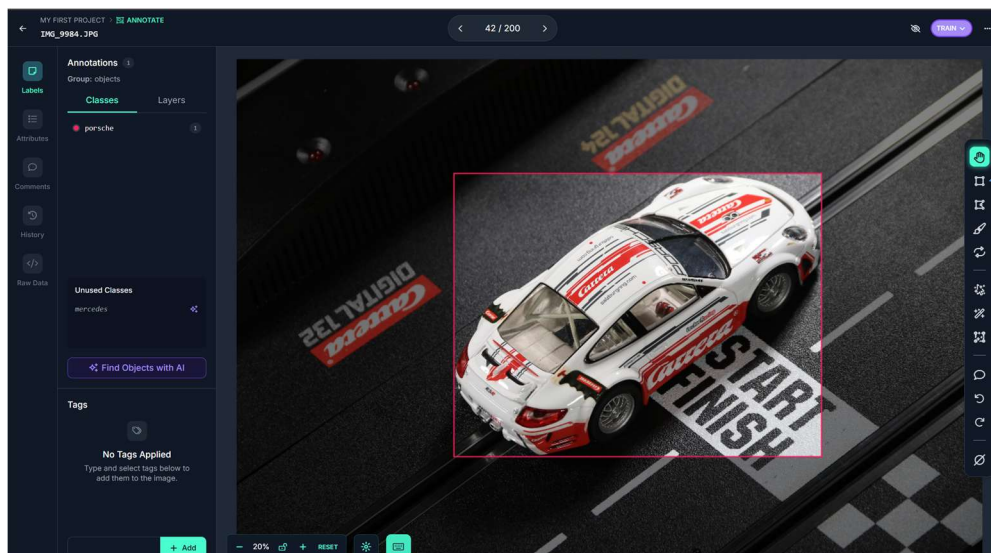
Show More ↓

Cancel

Create Public Project

1.4 Bilder Hochladen

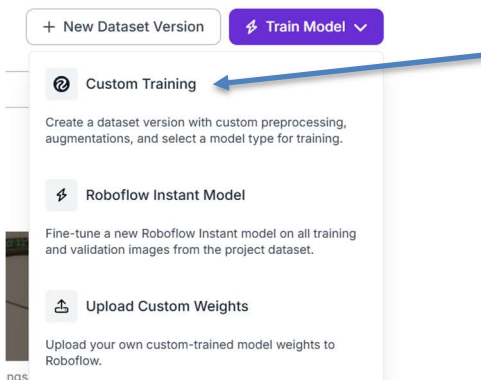
- Upload Data
 - Bilder hochladen -> Save and Continue
 - Auto-Label Entire Batch
 - Unter Foundation Models wähle SAM 3(Maks)
 - Erstelle außerdem eine Klasse
 - Auto Label With This Model
 - Start Auto Label
 - Auf Review klicken und jedes Bild kontrollieren, ob es richtig annotated wurde. Falls nicht muss die Bounding Box manuell gezogen werden:



- Add Approved to Dataset
 - Method: Split Images Between Train/Valid/Test

1.5 Train Model

- Custom Training



- Augmentation
 - Add Augmentation Step
 - Verwende:
 - Flip
 - 90° Rotate
 - Crop
 - Saturation
 - Brightness
 - Exposure
 - Blur
 - Noise
- Setze die Maximum Version Size so, dass ca. 1000 Bilder entstehen

1.6 Custom Train

- Roboflow 3.0
- Model Size: Fast
- Train from Previous Checkpoint -> Start Training

1.7 Model Testen (Mit der Webcam)

- Models -> Modell, das getestet werden soll, wählen -> Try with Webcam

The screenshot shows the Roboflow web interface for a custom-trained model. The left sidebar contains navigation options like 'My First Proj...', 'DATA', 'MODELS', and 'DEPLOY'. The main area is titled 'Preview Model' and includes sections for 'Samples from Test Set', 'Upload Image or Video File', and 'Image URL'. A blue arrow points to the 'Try With Webcam' button in the 'Image URL' section. The 'Metrics' section at the top right shows mAP@50: 99.5%, Precision: 99.9%, and Recall: 100%. The 'Preview Model' section shows a car on a track with a bounding box and the label 'porsche 911'. The 'Image URL' section has a 'Try With Webcam' button. The 'Image URL' section also has a 'Try On My Machine' button. The 'Image URL' section also has a 'Try With Webcam' button. The 'Image URL' section also has a 'Try On My Machine' button.