



## Tool Detective

**Claim:** We automate the cutting tool measuring process using AI for image analysis.

## The Project

Tool Detective provides users with tooling to generate value from image data. Possible tasks are image classification, object detection and area segmentation. The customer is enabled to upload image data, manually label it according to the task and have an expert train an AI model in the background.

A User Interface enables utilizing the model for human operators. An API allows Machine to Machine communication for automated decision making based on the image analysis.

The first usecase addressed in the project is cutting tool wear detection on microscopic images of cutting tool edges used in manufacturing. This usecase is selected because of the industrial network of IPT and the member background.

## The Team

**Location:** We are based in Aachen. Our cooperating Fraunhofer Institute is the IPT.

**Members:** Yuri Winche Achermann (Project Management, Coding)  
Carsten Holst (Project Lead, Communication, Scripting)  
Patrick Schwemmer (Head of AI)

**AHEAD Infos** Batch: #3 2022

Phase: 2

Track: Spin Off

## The Business Model

**Unique Selling Proposition:** Focus on UX. Free to use app with payment options for intense use and M2M automation.

**Unfair Advantage:** First Mover Advantage, Network, Valuable Data

**Revenue Model:** SaaS: Pay-per-use | Subscription

### Venture Readiness Level



### Technology Readiness Level



## The Side Facts

**Customer Focus:** B2B

**Searching For:** Hardware Engineer, Full Stack Web Developer, Investors, Customers

**Industry Tags:** #Machining, #CuttingTools

**Technology Tags:** #AI, #NeuralNetwork, #DeepLearning, #ComputerVision