



# Karevo

Dive into the World of  
Automation in Agriculture!

## IDP

### AI based Computer Vision in Agriculture

Development of a robust computer vision model to detect defects on agricultural products



## Our mission

We specialize in creating affordable, retrofittable potato sorting systems. Our core mission? Empowering farmers with state-of-the-art AI. With our solution we want to reduce their workload, save labor costs and allow them to focus more on the product and their personal life. We're initiating our journey with small to medium scale potato farmers as our primary market, setting the stage for further affordable automation innovations in agriculture.

## (Potential) Work Packages

Comprehensive exploration and enhancement of artificial intelligence in agricultural quality determination.

- **Raw data analysis** for in-depth understanding.
- **Improved detection of specific potato defects:** participate in the development of a hybrid-system that combines both "traditional" image processing methods and AI (neural network) for improved accuracy, computational efficiency (edge computing) and robustness.
- **Generalizability across potato varieties and conditions:** Develop a system that is robust to variations in potato appearance due to variety, growing conditions, and storage environments.
- **Real-time defect detection for in-line grading:** Implement the system on embedded hardware for real-time processing on sorting lines or harvesting equipment



### Start-up culture

Team events, agile work style (SCRUM), flat hierachies and flexible working hours, motivated team



### Real world impact

You will help develop affordable machines for farmers, reducing their workload and improve food security



### Ownership

You get responsibility for your task and are the first contact person for that.



### Office and Makerspace

We have our office space in the TUM Venture Lab in Freising with direct access to a makerspace and colab

## Contact



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