

1.1 Meeting Minutes

Meeting 1 – Project Kick-off

Date : Week 1

Participants : Tom Nicolaï, Titouan Lepasqueur, Paul Fortune Corroy

Objectives :

- Brainstorm project ideas related to aeronautics and AI
- Select a feasible and innovative topic

Discussion :

Several ideas were proposed during the brainstorming session. The team agreed on focusing on aircraft maintenance and safety. The idea of detecting cracks on aircraft fuselages using computer vision was selected due to its strong industrial relevance and feasibility with available tools.

Decisions :

- Project topic validated: automatic detection of fuselage cracks
- Use of AI and image processing

Action items :

- Research existing solutions and datasets (Team)
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Meeting 2 – Technical Research & Tool Selection

Date : Week 2

Participants : Team

Discussion :

The team conducted research on computer vision techniques and platforms. Roboflow was identified as a suitable solution due to its dataset management, model training, and API deployment features.

Decisions :

- Use Roboflow for dataset management and model training
- Use a hosted detection model with API access

Action items :

- Collect a large dataset of fuselage crack images (Team)

Meeting 3 – Dataset & Training

Date : Week 3

Participants : Team

Discussion :

The team collected close to 1000 images of aircraft fuselages with visible cracks. More than 800 images were used for training the model. The training process lasted approximately 5 hours on Roboflow.

Decisions :

- Validate dataset quality
- Proceed with full model training

Action items :

- Monitor training performance
- Prepare inference tests (Tom)

Meeting 4 – Implementation & Integration

Date : Week 4

Participants : Team

Discussion :

Integration of the Roboflow model into a Python script was challenging, especially for retrieving the API key and inference URL. After several attempts, the team successfully implemented a working pipeline.

Decisions :

- Final validation of the detection pipeline
- Prepare project artefacts and portfolio

Action items :

- Clean and comment the code
- Prepare documentation