Repetition Counting in Aircraft Engines

Aiir Innovations (https://www.aiir.nl/) is an Artificial Intelligence startup that focuses on automating the inspection of jet engines. During these engine inspections, the rotor is slowly turned to properly inspect passing blades for material surface defects. Mechanics need to count the blades to ensure that each blade on the rotor is inspected, and to index the blades to report findings. This distracts them from finding defects.

We developed a counter that automatically counts the blades in a video of a rotating engine; this counter is not based on a deep network. In this project you would perform research to improve upon the current blade counter, using state-of-the-art deep learning techniques.

More about Aiir

https://www.youtube.com/watch?v=PMxDBOMhqac
https://www.nhnieuws.nl/media/59858/Startups-in-de-Metropool-Aiir-Innovations (Dutch)

We develop software that automatically detects material surface defects such as cracks and dents in mechanical structures. We currently focus on turbine blades.

Our software analyses video footage and images to assist mechanics throughout their inspections. It's an additional pair of eyes that helps check for irregularities and automatically generates a digital report. This saves mechanics time, while increasing the quality of the inspections.

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