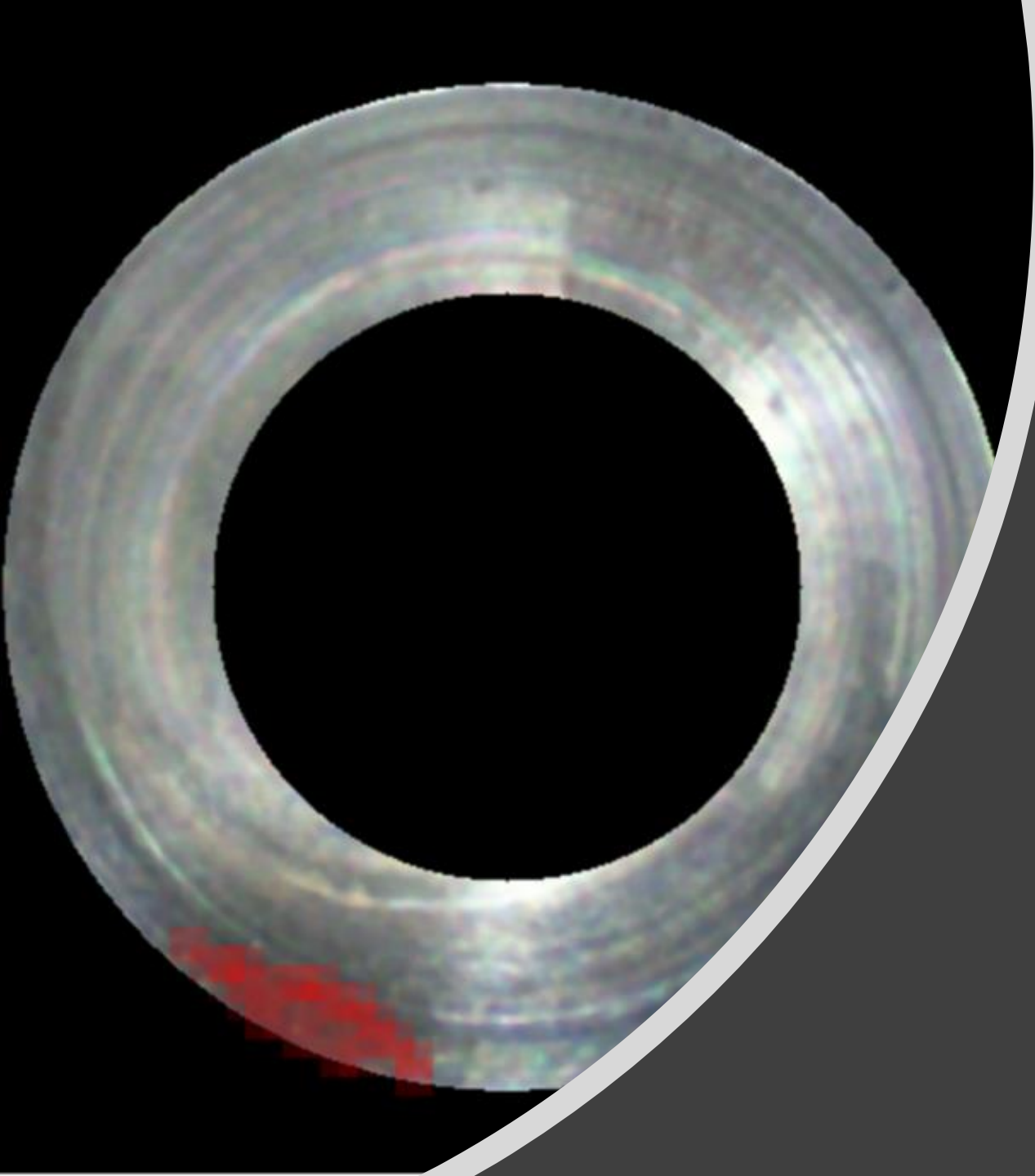




PEKAT VISION

Brain Behind the Eye



PEKAT VISION

industrial visual inspection with AI


Execution

Process

Save images

Capturing and Filtering

 Camera

 Auto trigger

 Images

Processing

 Modules

 Flow inspection

unsupervised VALIDATION **TRAINING**

START TRAINING

 REMOVE ANNOTATIONS

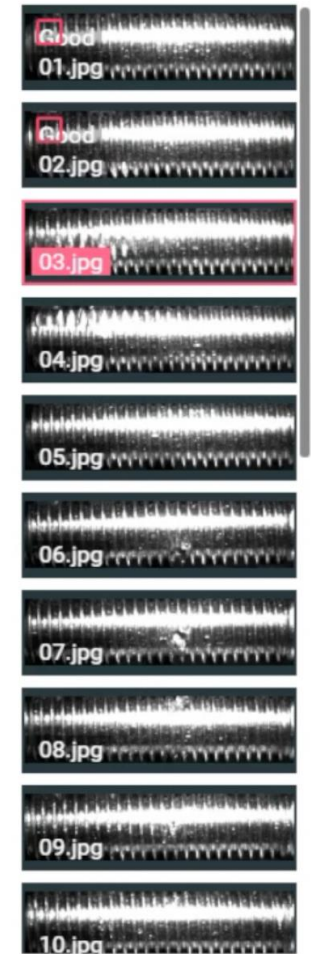
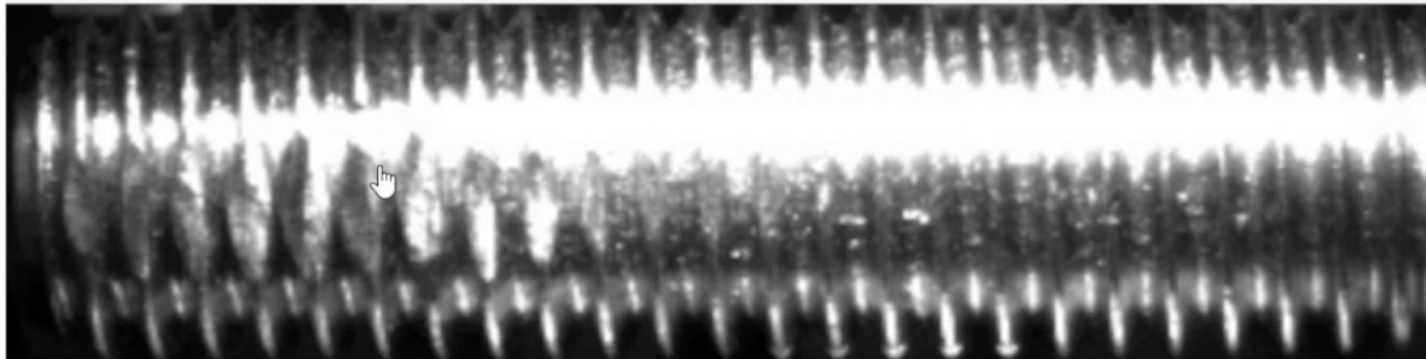
03.jpg 340x85



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- None
- Good (2)
- Bad (0)



Execution

 Process Save images

Capturing and Filtering

 Camera Auto trigger Images

Processing

 Modules Flow inspection

unsupervised

VALIDATION

TRAINING

< LIST OF MODELS

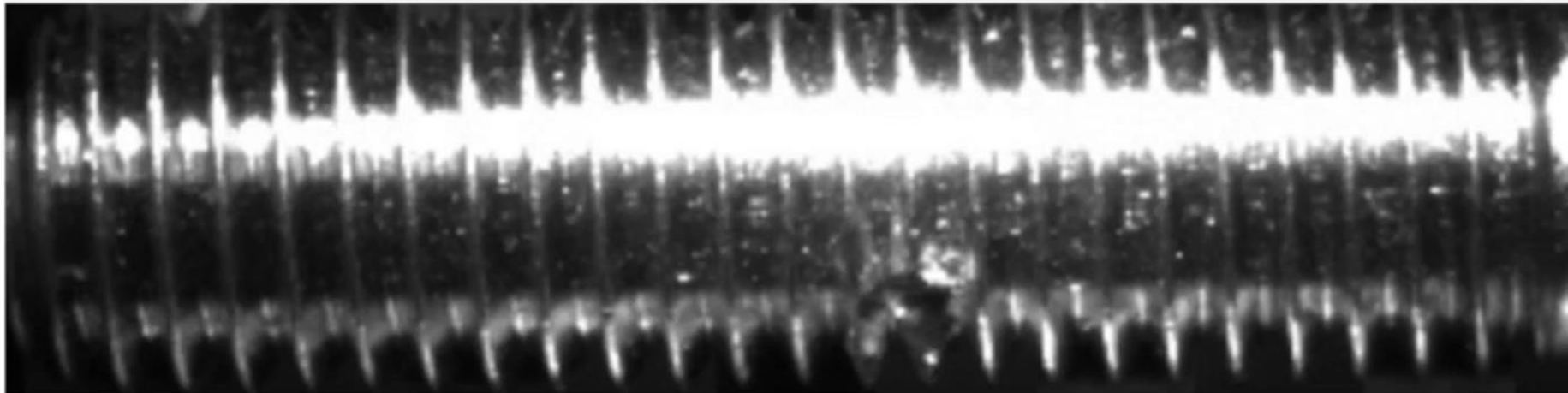
Sensitivity

82

06.jpg 340x85










44 / 44




Algorithms going beyond AI

- Focused Learning
 - It is able to **focus on details**.
- Anomaly Detection
 - Training only **on positive** images
- Only a few images are enough to learn and understand the task.
- The **right set** of self-learning tools
 - Can be flexibly combined

<>	Code
	Detector
	Classifier
	Parallelism
	Mask
	Surface
	Anomaly
	Unifier (beta)

Anomaly Detection

Anomaly 

PEKAT VISION ? ⚙️

Execution

- Process
- Save images

Capturing and Filtering

- Camera
- Auto trigger
- Images













Processing

- Modules
- Flow inspection

Images

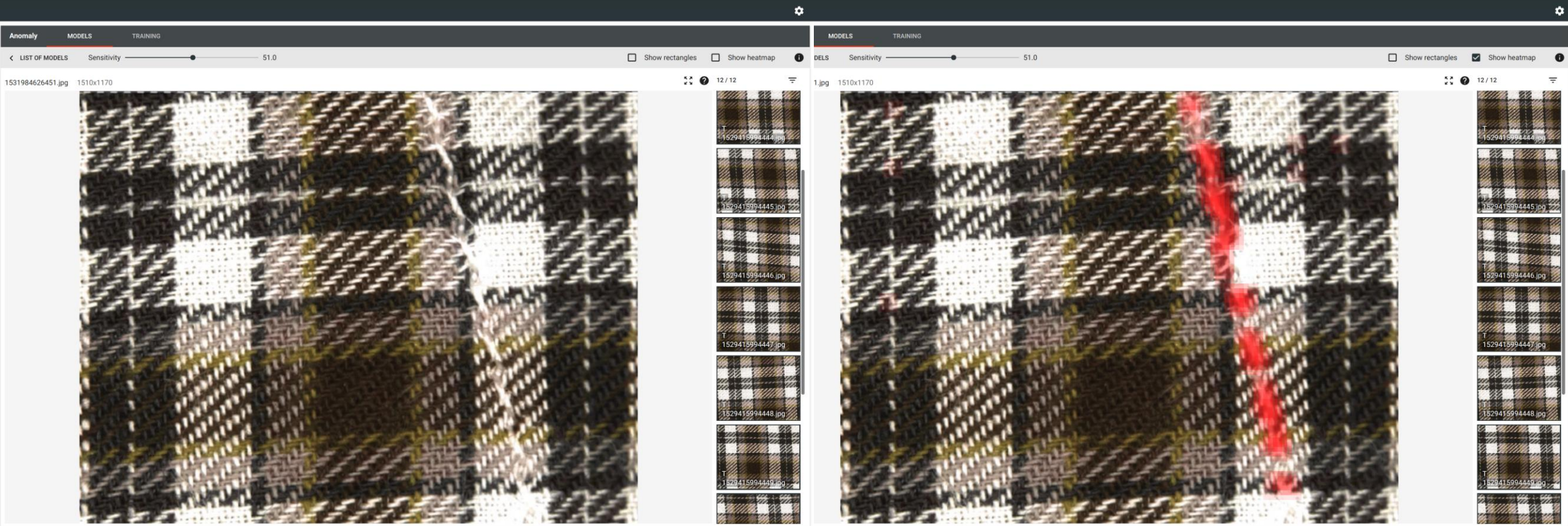
↑ ADD IMAGES 🗑️ SELECT ALL

Search ... Newest first ▾


 1529415994442.jpg	 1529415994443.jpg	 1529415994444.jpg	 1529415994445.jpg	 1529415994446.jpg
 1529415994447.jpg	 1529415994448.jpg	 1529415994449.jpg	 1529415994450.jpg	 1529415994451.jpg
 1529415994452.jpg	 1529415994453.jpg			

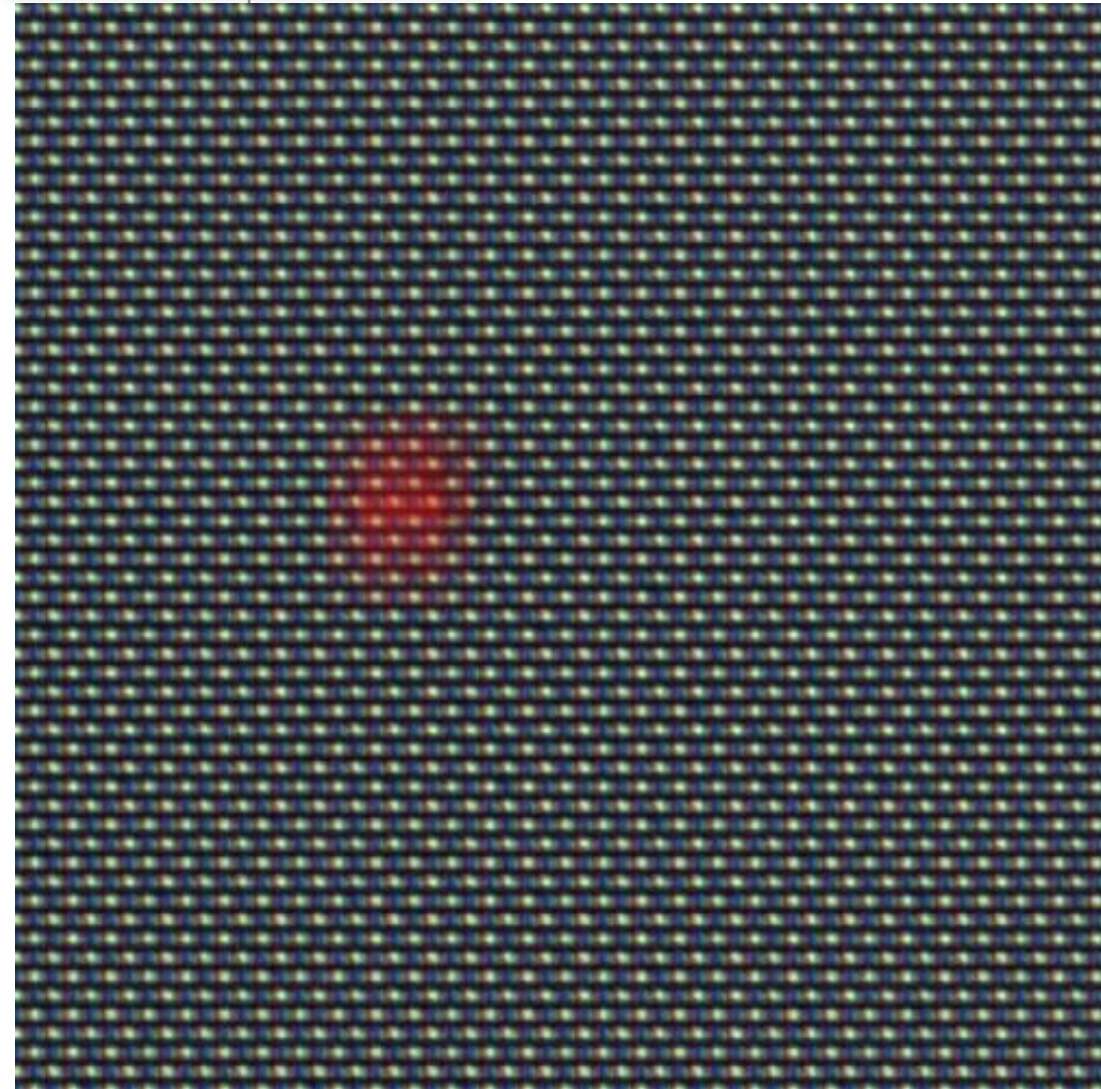
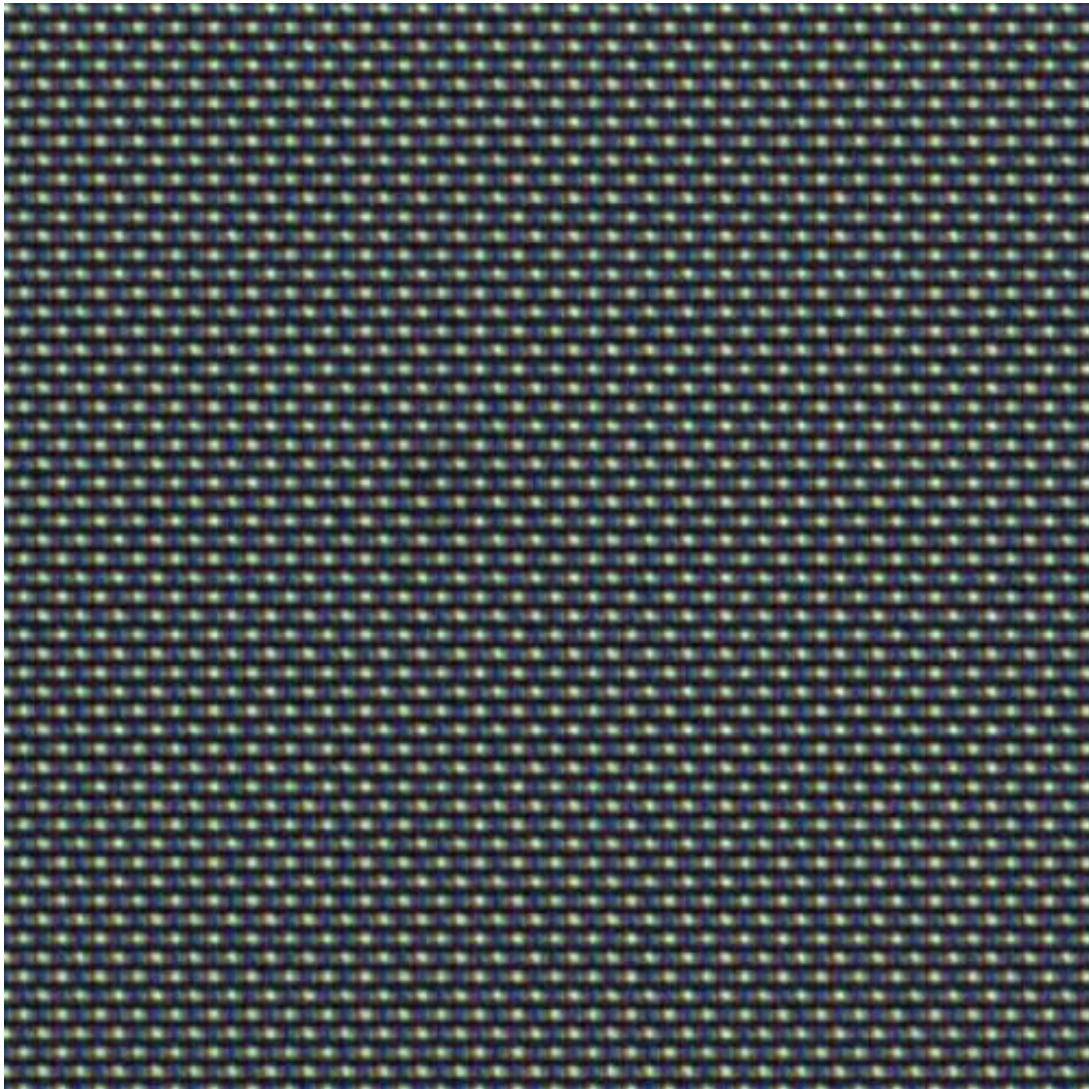
Anomaly Detection

Anomaly



Anomaly Detection

Anomaly 






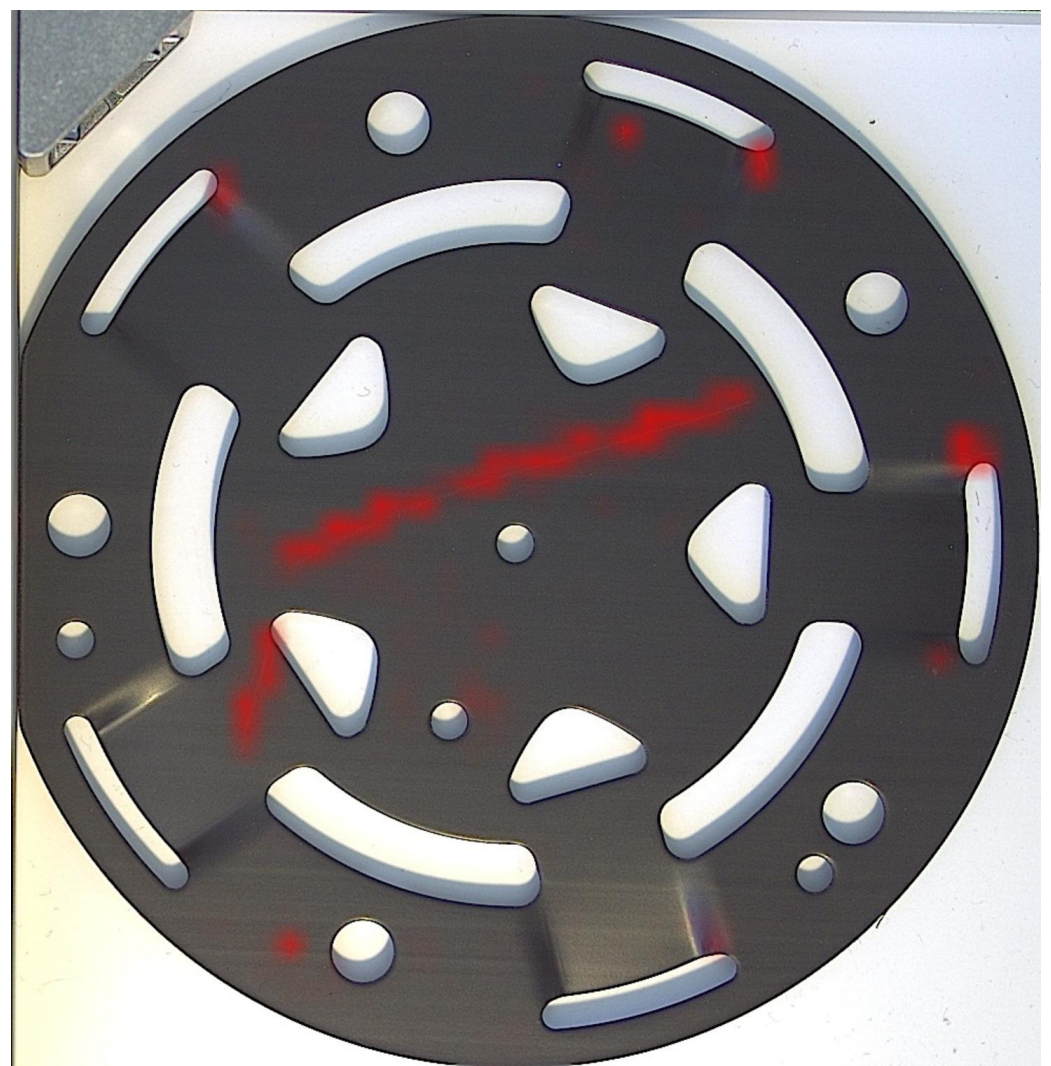
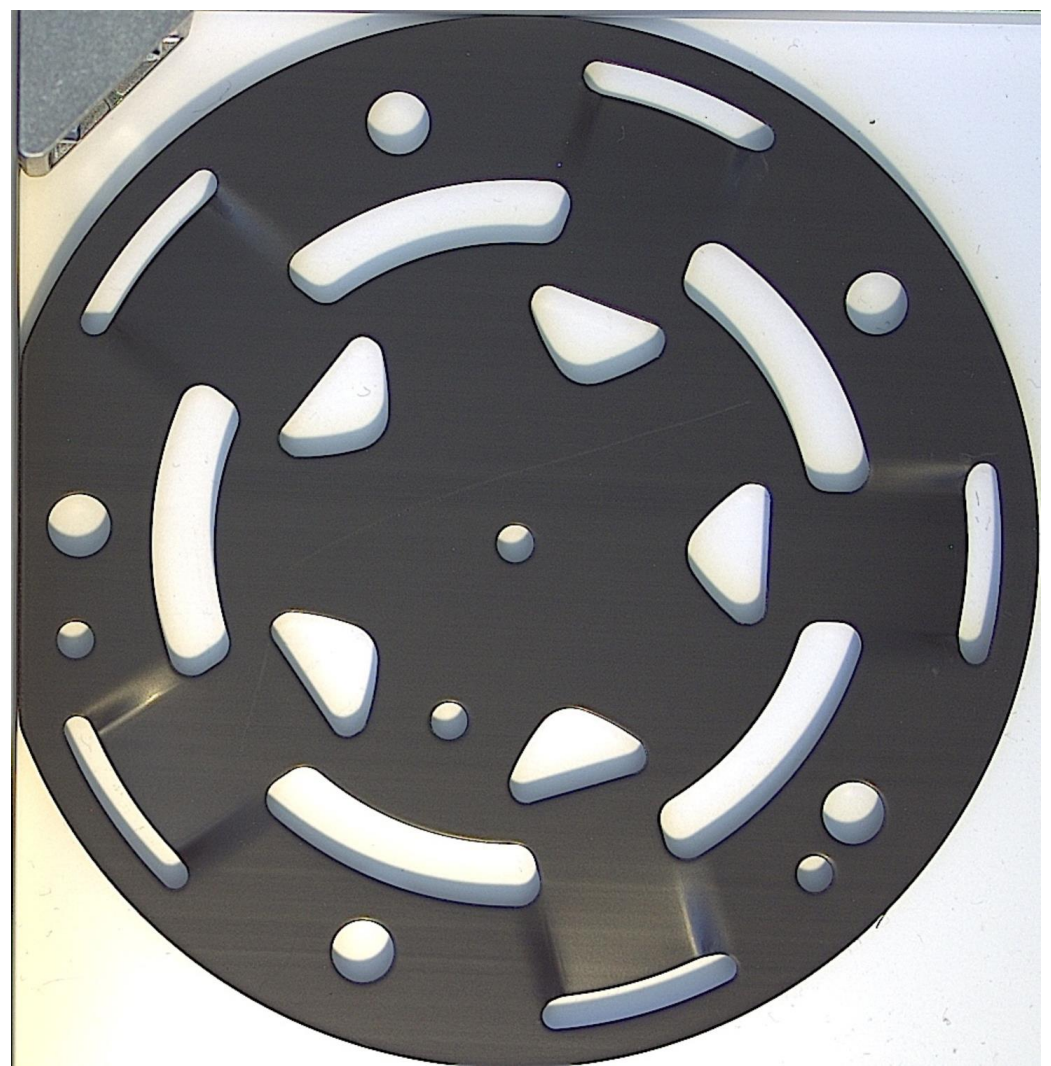
EST. 1997
AATECH




accenture

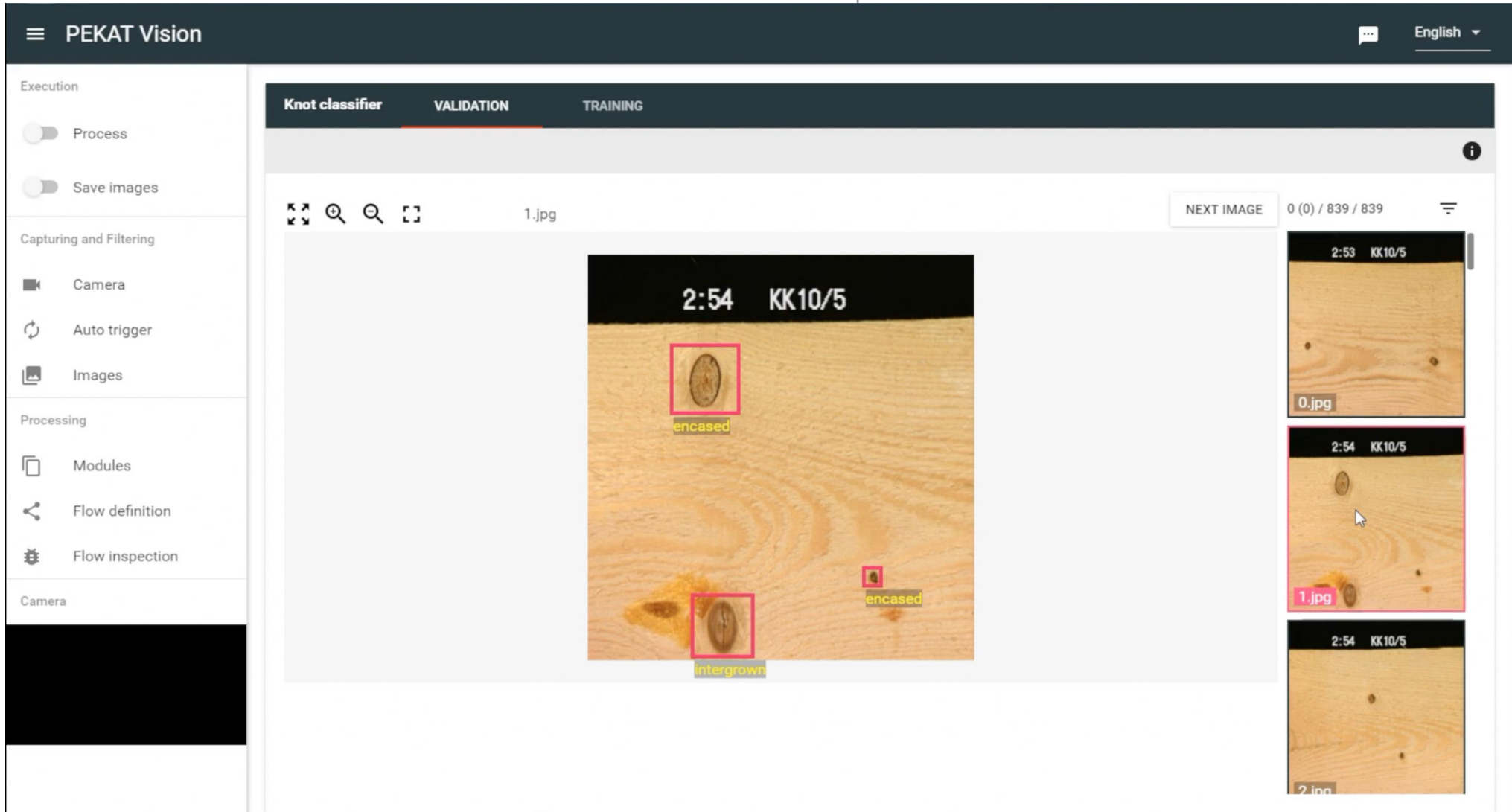
Surface check

Surface 



Object detection


Detector 



The screenshot displays the PEKAT Vision software interface. On the left is a sidebar with navigation options: Execution (Process, Save images), Capturing and Filtering (Camera, Auto trigger, Images), Processing (Modules, Flow definition, Flow inspection), and Camera. The main window is titled 'Knot classifier' and has tabs for 'VALIDATION' and 'TRAINING'. The 'VALIDATION' tab is active, showing a large image of wood with three detected knots. The top of the main window shows '1.jpg', a 'NEXT IMAGE' button, and a progress indicator '0 (0) / 839 / 839'. The detected knots are labeled: 'encased' (top), 'intergrown' (bottom), and 'encased' (right). A vertical strip on the right shows a sequence of images labeled '0.jpg', '1.jpg', and '2.jpg', with '1.jpg' highlighted by a mouse cursor. The top right corner of the interface shows 'English' with a dropdown arrow.



Unifier

Unifier 

PEKAT VISION ? ⚙️

Execution

- Process
- Save images

Capturing and Filtering

- Camera
- Auto trigger
- Images

Processing

- Modules
- Flow inspection

Unifier

[BACK](#) [SAVE](#) [align](#) PREVIEW

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angle: 33,12

width: 245

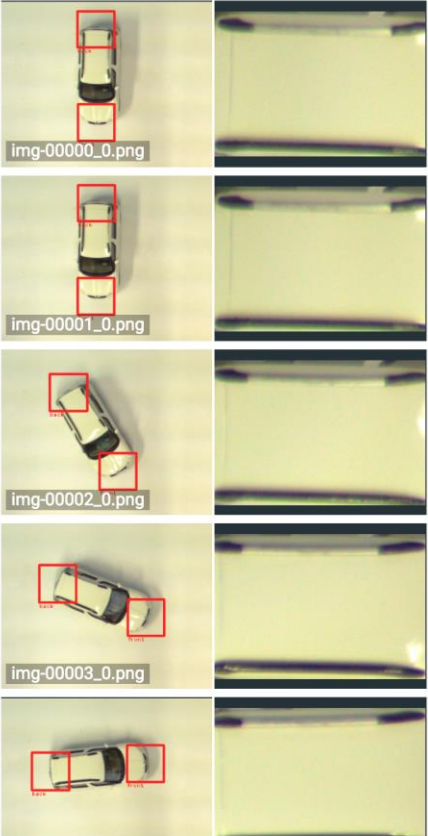
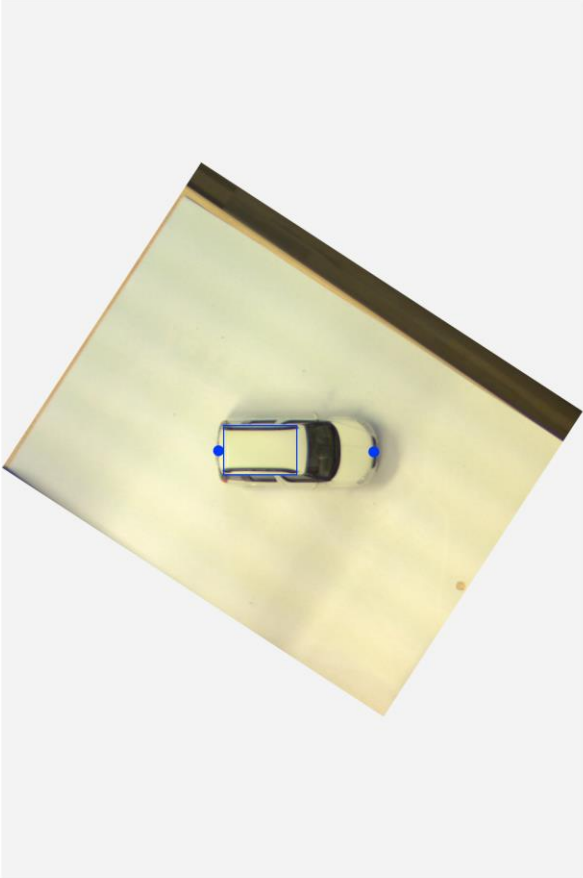
height: 167

offset-x: -105


offset-y: 37

Active classnames

- front
- back



Classifier

Classifier 

 PEKAT VISION ? ⚙️

Classify railings MODELS TRAINING

< LIST OF MODELS i

img-00006_0.png 245x167 ⏏ ? (18) / 61 / 61 ☰

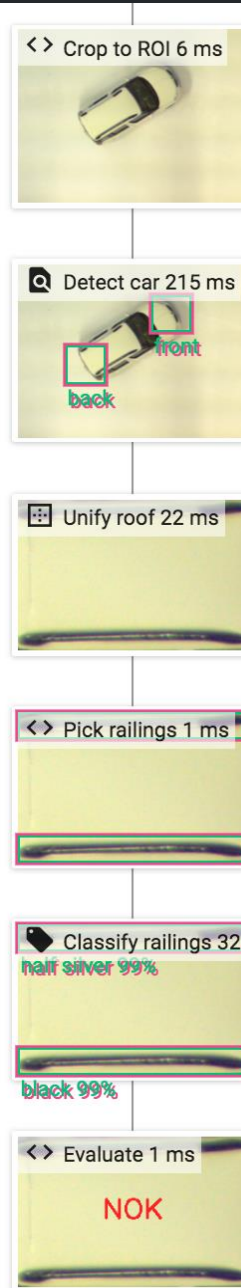
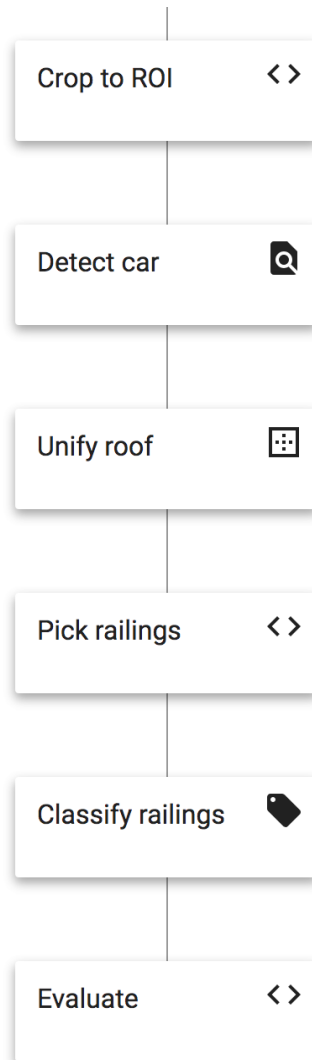


half silver 99%

black 99%

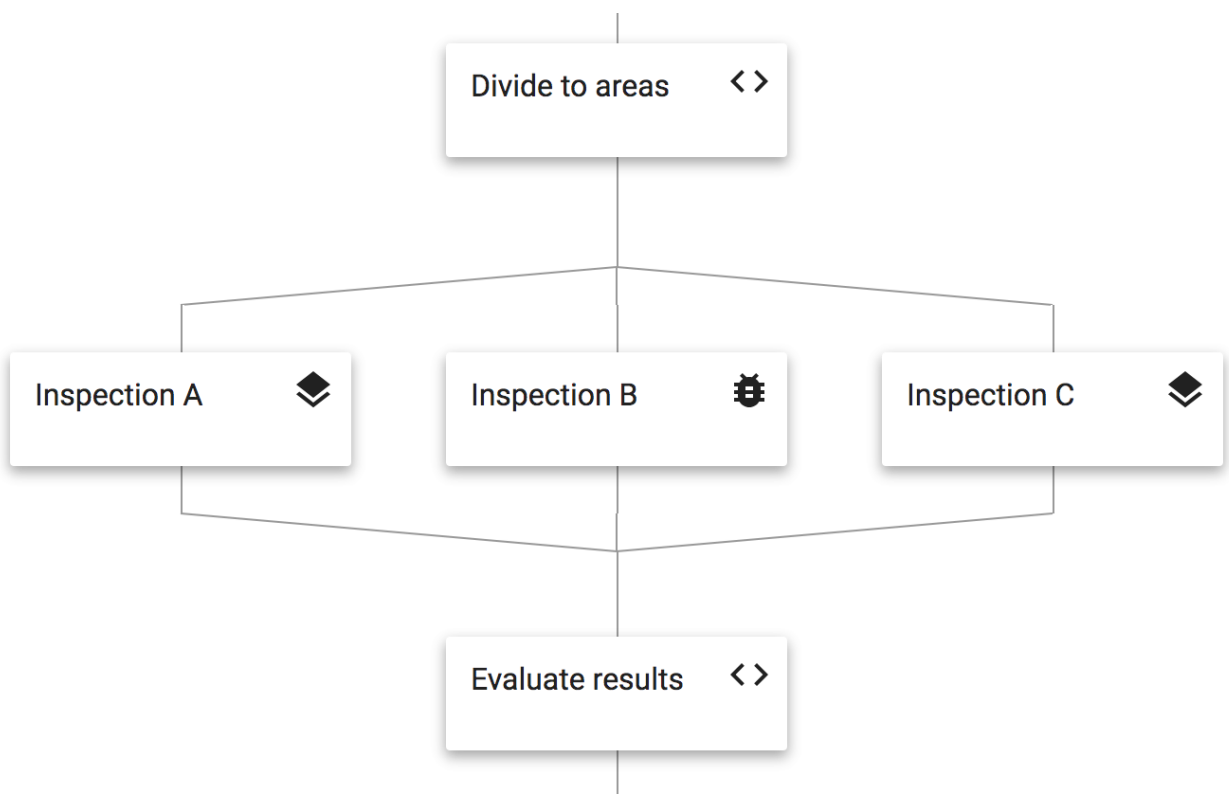
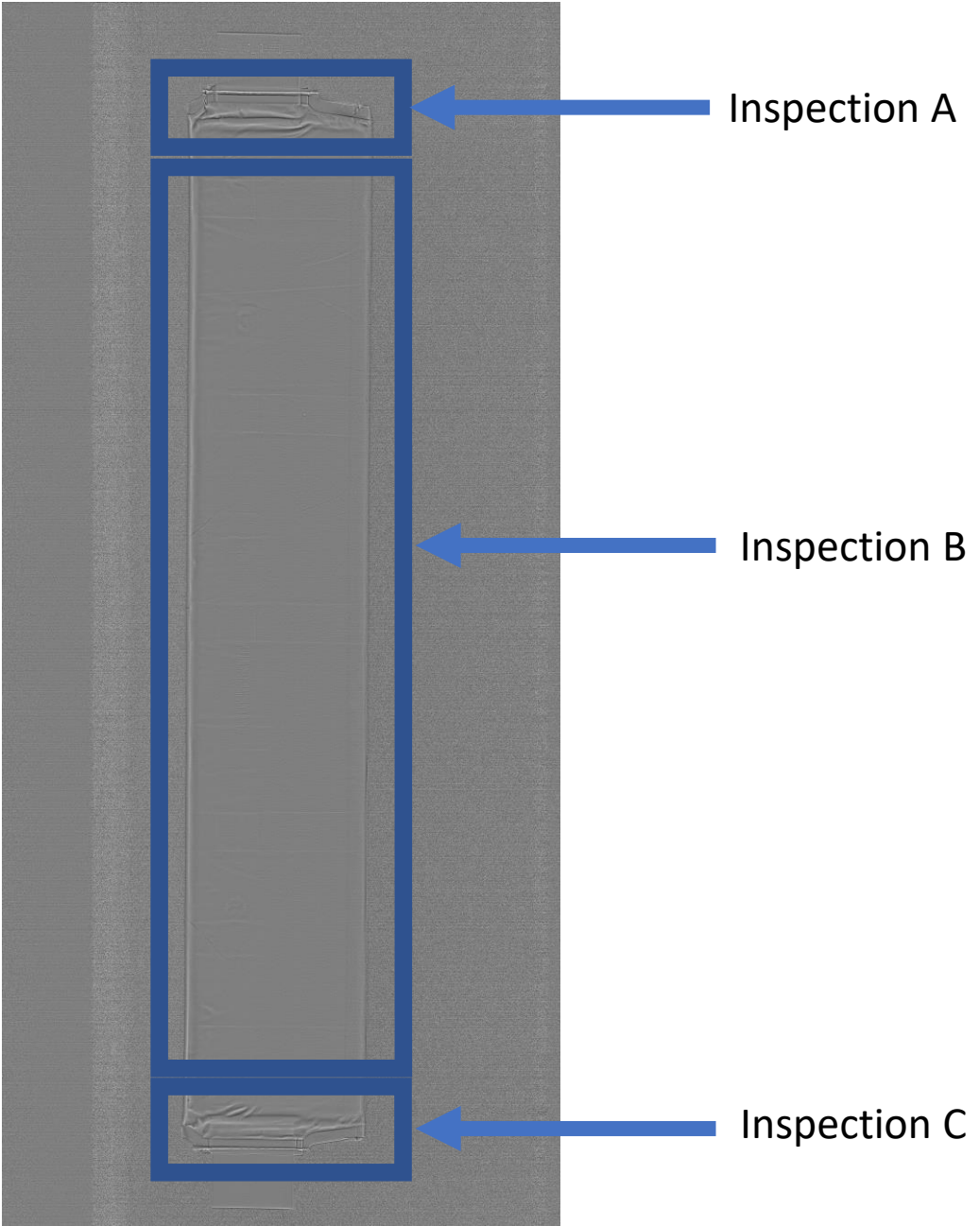
- img-00006_0.png
- img-00007_0.png
- img-00008_0.png
- img-00009_0.png
- img-00010_0.png

Processing Flow

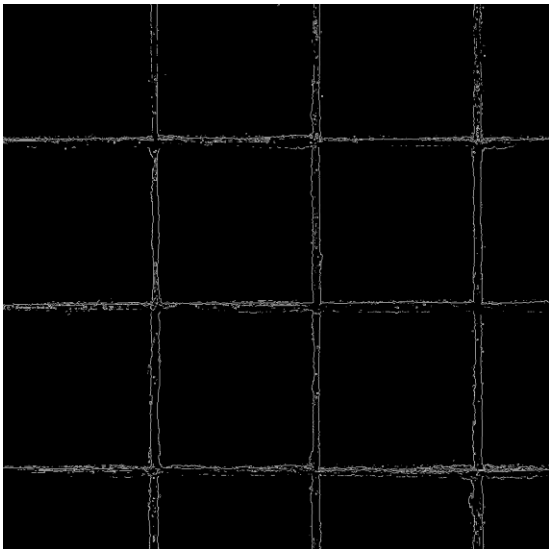


```

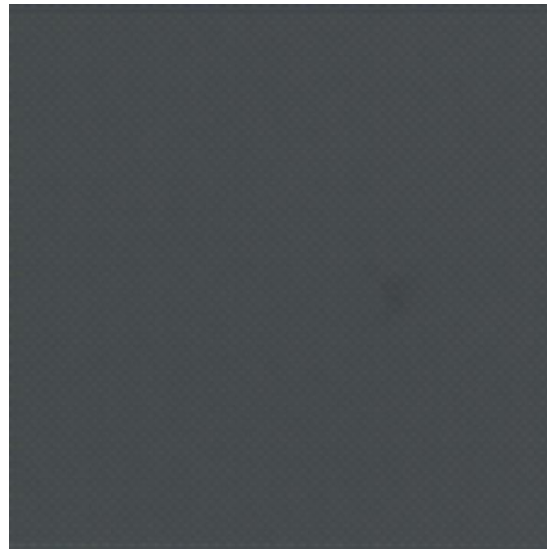
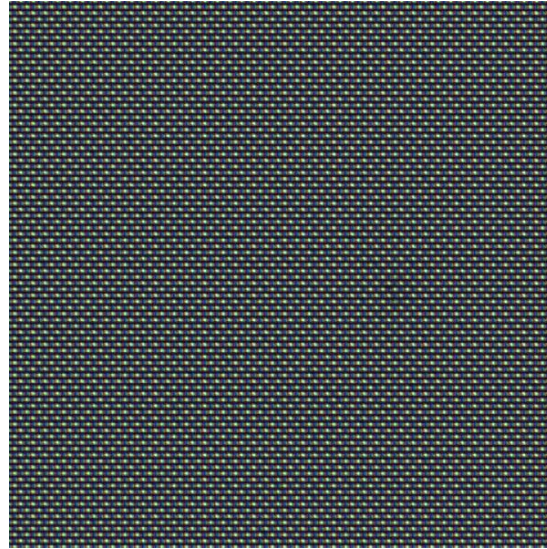
{
  "detectedRectangles": [
    {
      "x": 0, "y": 0, "height": 30, "width": 245,
      "classNames": [ { "label": "half silver", "accuracy": 0.99 } ]
    },
    {
      "x": 0, "y": 137, "height": 30, "width": 245,
      "classNames": [ { "label": "black", "accuracy": 0.99 } ]
    }
  ],
  "heatmaps": [],
}
  
```



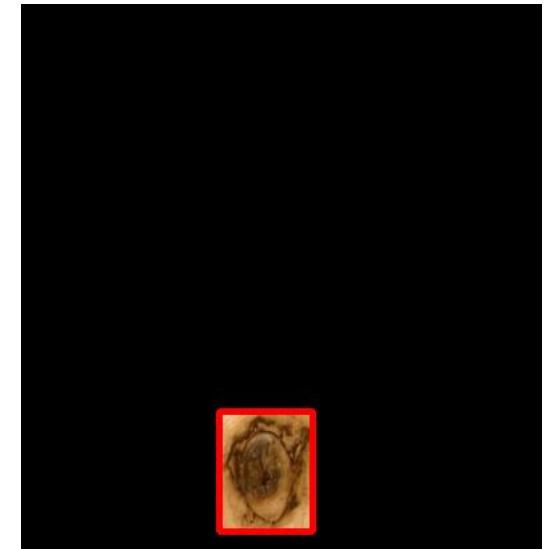
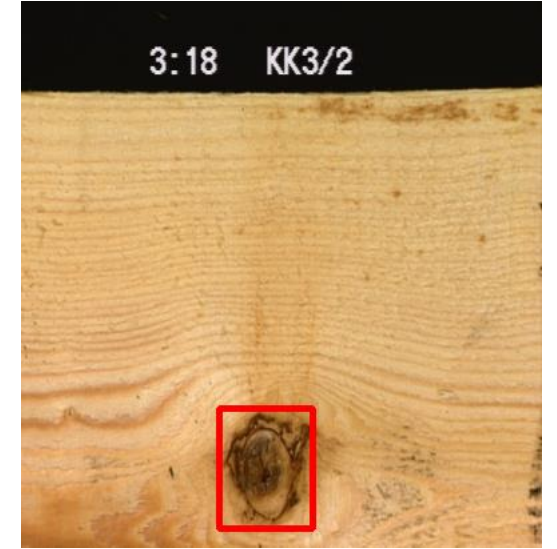

```
context['image'] =  
cv2.Canny(context["image"], 120, 130)
```




```
context['image'] =  
cv2.blur(context['image'], (20,20))
```



... short numpy code...



One day PoC

PEKAT Vision 

Execution

- Process
- Save images

Capturing and Filtering

- Camera
- Auto trigger
- Images



Processing

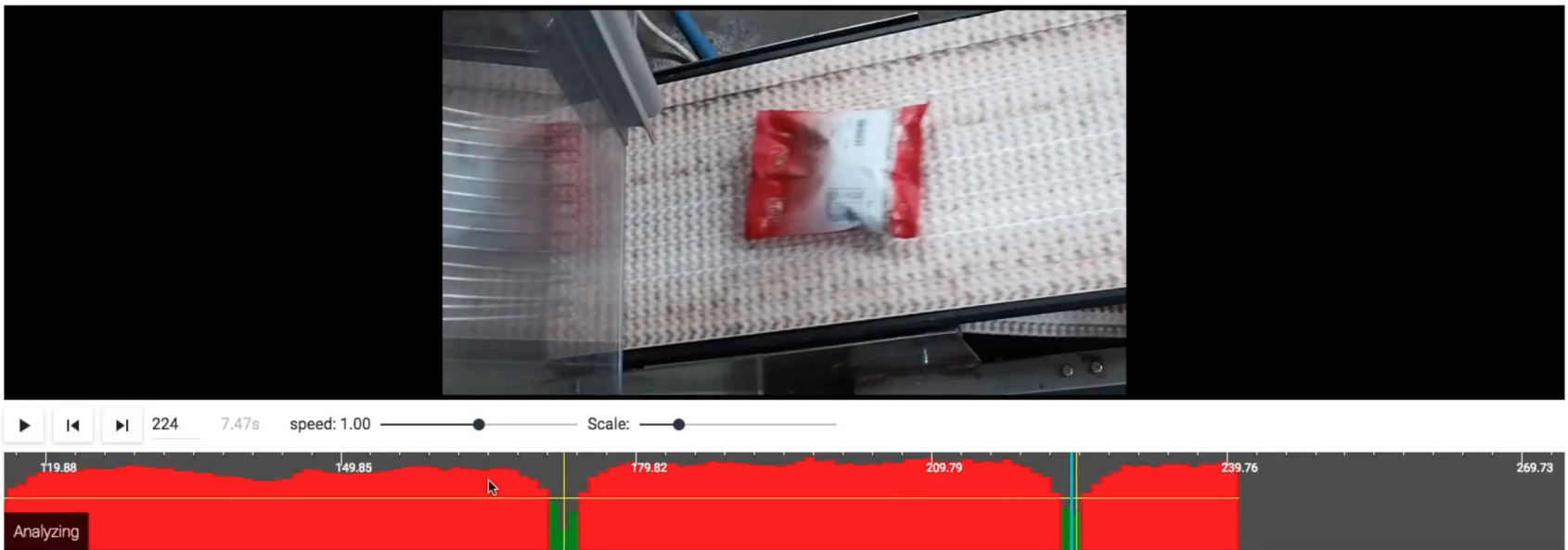
- Modules
- Flow definition
- Flow inspection


Camera

NO VIDEO STREAM

Auto trigger TRAINING VALIDATION CODE

BACK  

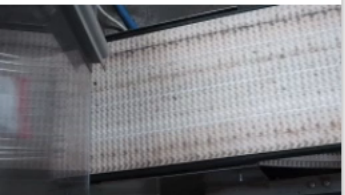


▶ ◀ ▶▶ 224 7.47s speed: 1.00 Scale: 

119.88 149.85 179.82 209.79 239.76 269.73

Analyzing

- Execution
 - Process
 - Save images
- Capturing and Filtering
 - Camera
 - Auto trigger
 - Images**
- Processing
 - Modules
 - Flow definition
 - Flow inspection
- Camera



Images

ADD IMAGES SELECT ALL

Search ... By name A - Z



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