Visual Inspection Application for ADFI
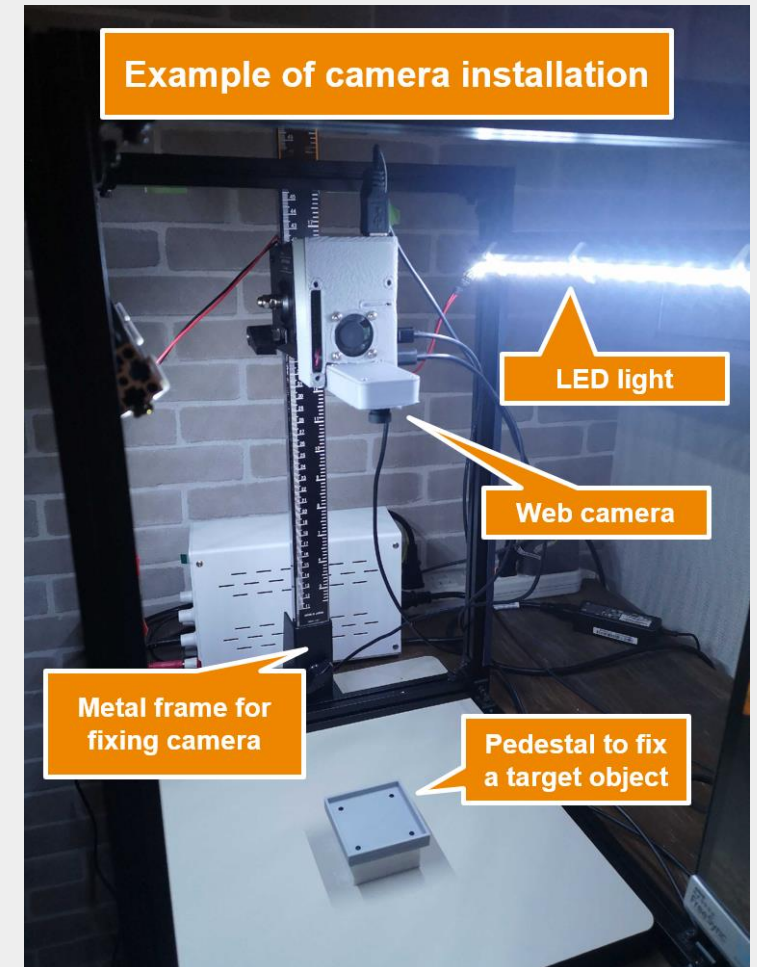# User Manual

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AI Robotics Ltd.

Overview of Visual Inspection Application for ADFI

This application is a software that automates visual inspections and foreign matter inspections in factories.

All you have to do is prepare an inexpensive web camera and a PC (no GPU required) and you can start inspection immediately.

When inspection, as shown in the right photo, please fix a web camera and a target object.

Example of camera installation

LED light

Web camera

Metal frame for fixing camera

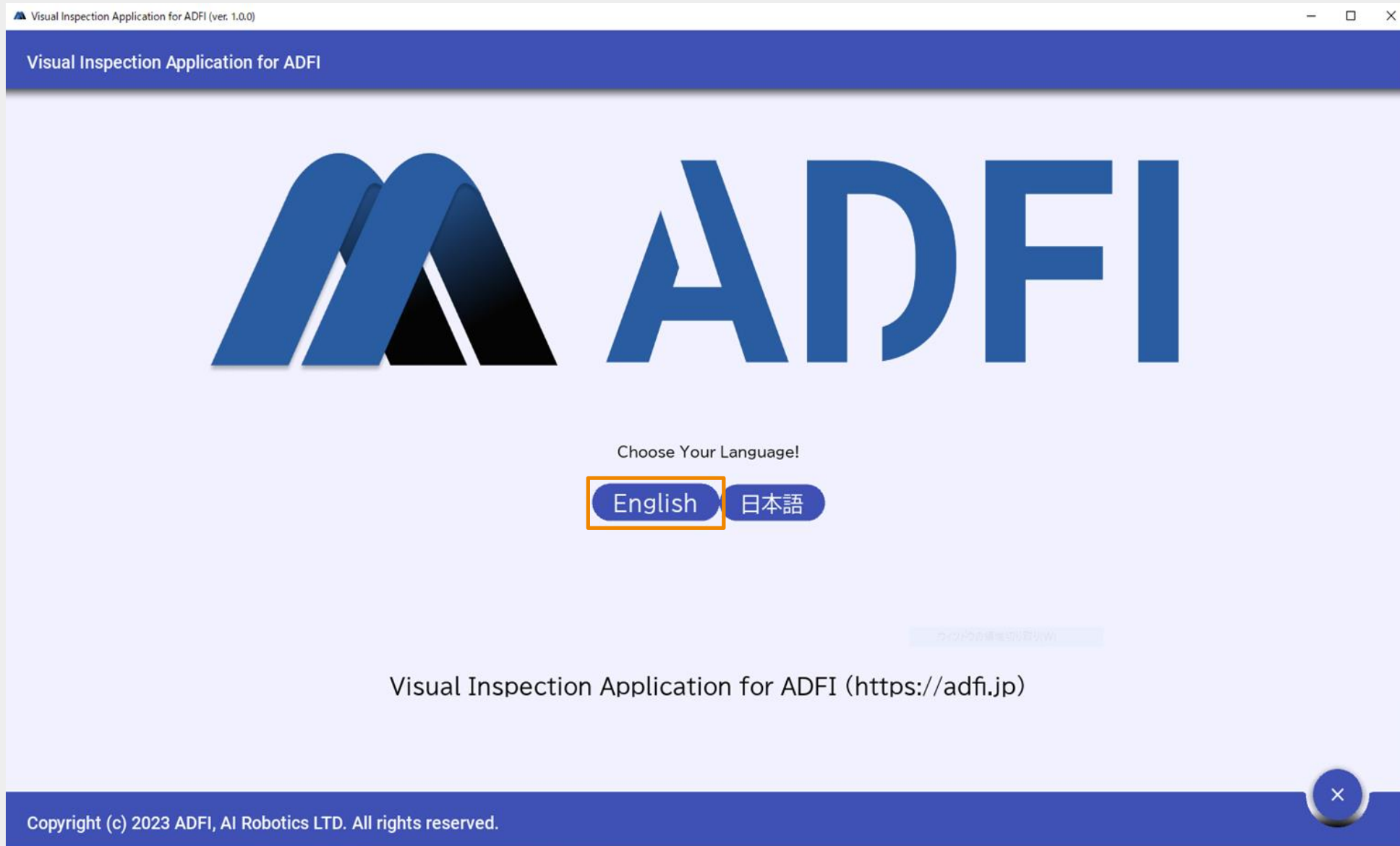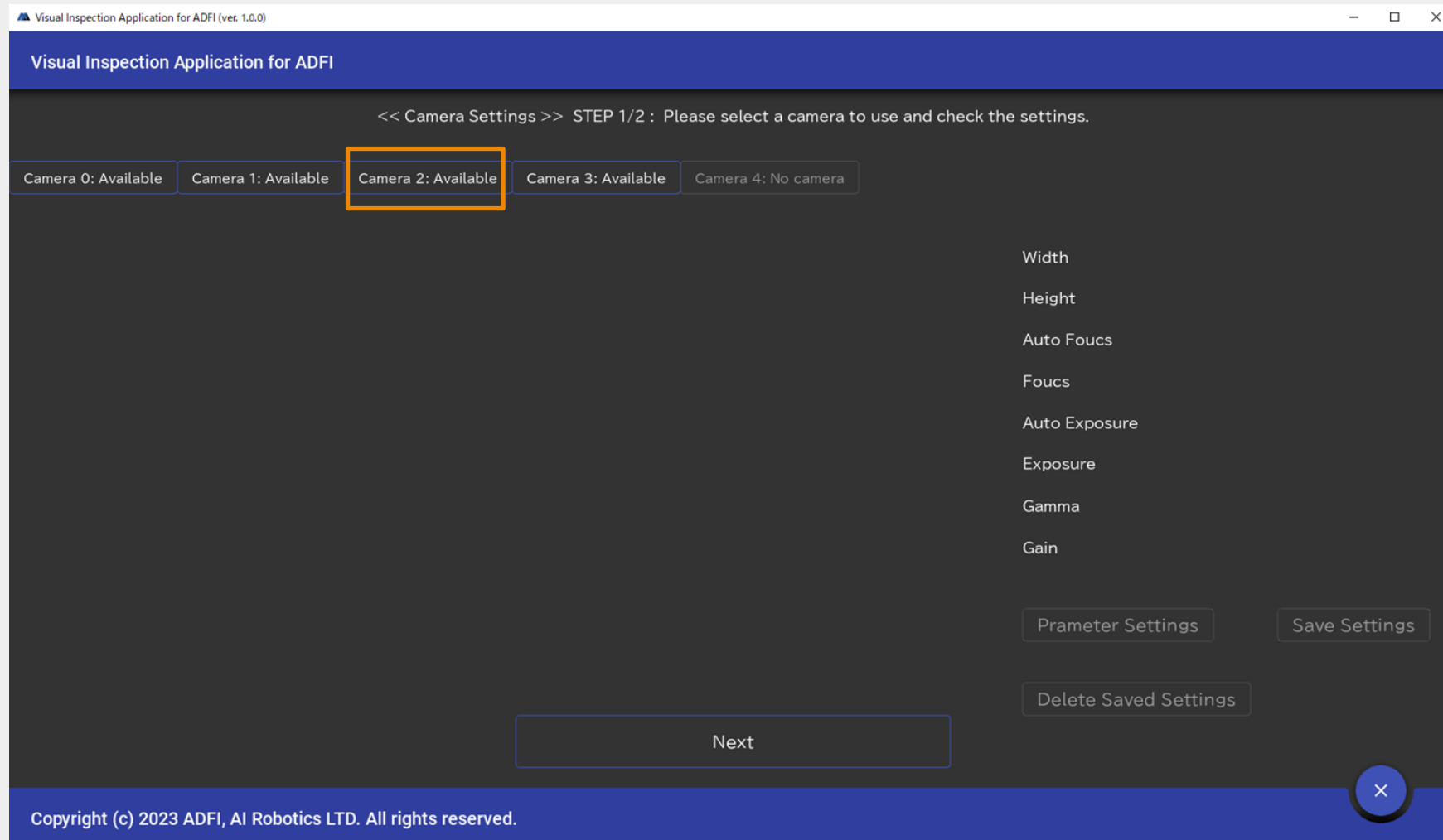Pedestal to fix a target object

Operation flow

1. Choose your language
2. Camera settings
3. Preprocessing settings
4. Inspection settings
5. Dataset Creation
6. AI Model Settings
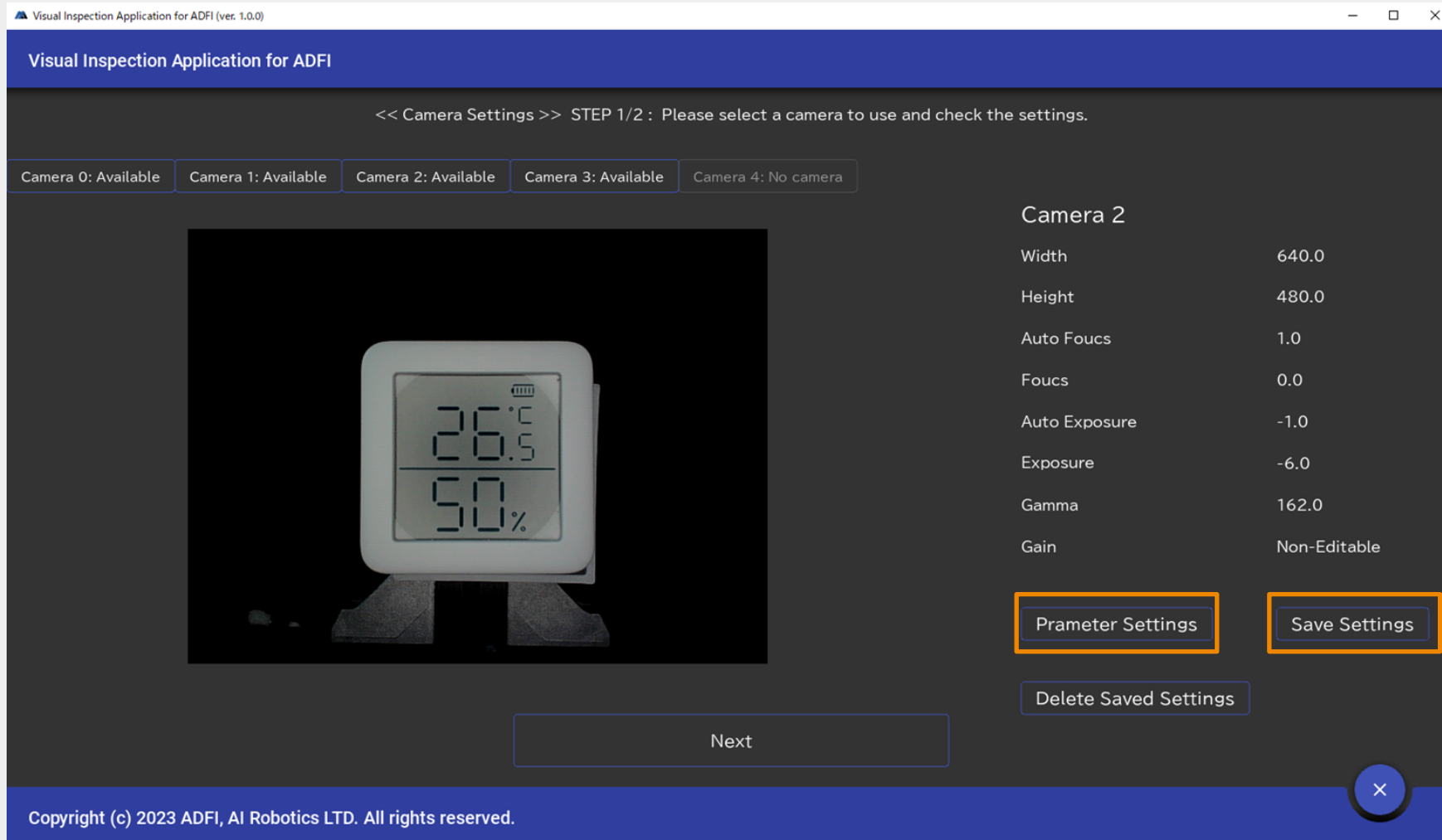7. Inspection

1. Choose your language

2. Camera settings

- Cameras connected to the PC are displayed.
- Please select the camera you want to use.

2. Camera settings

- If you want to change the parameters of the camera, you can change them by clicking "Parameter Settings" and "Save Settings".

2. Camera settings

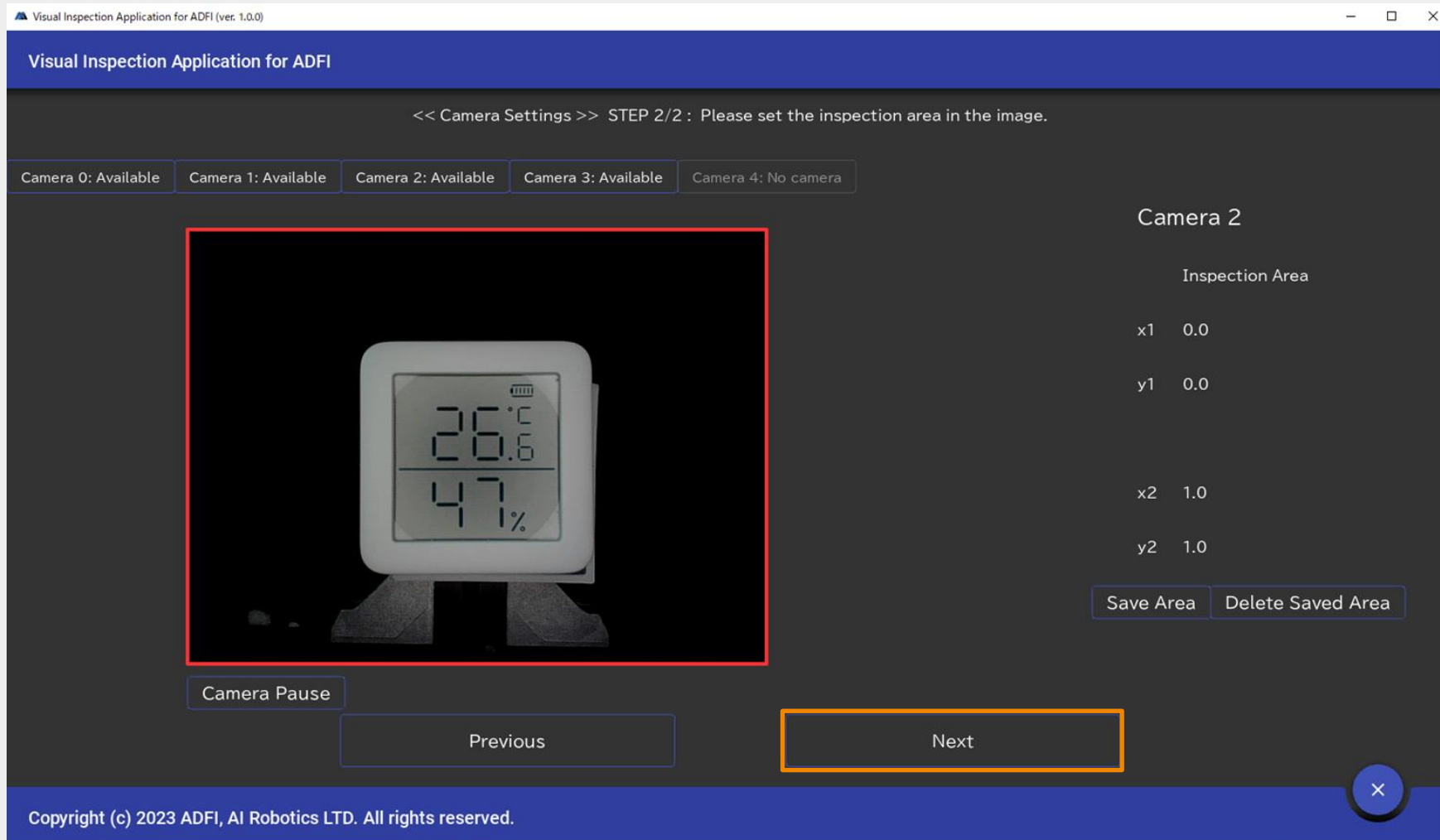- After saving the camera parameters, please click "Next".

2. Camera settings

- You can specify the area to inspect.
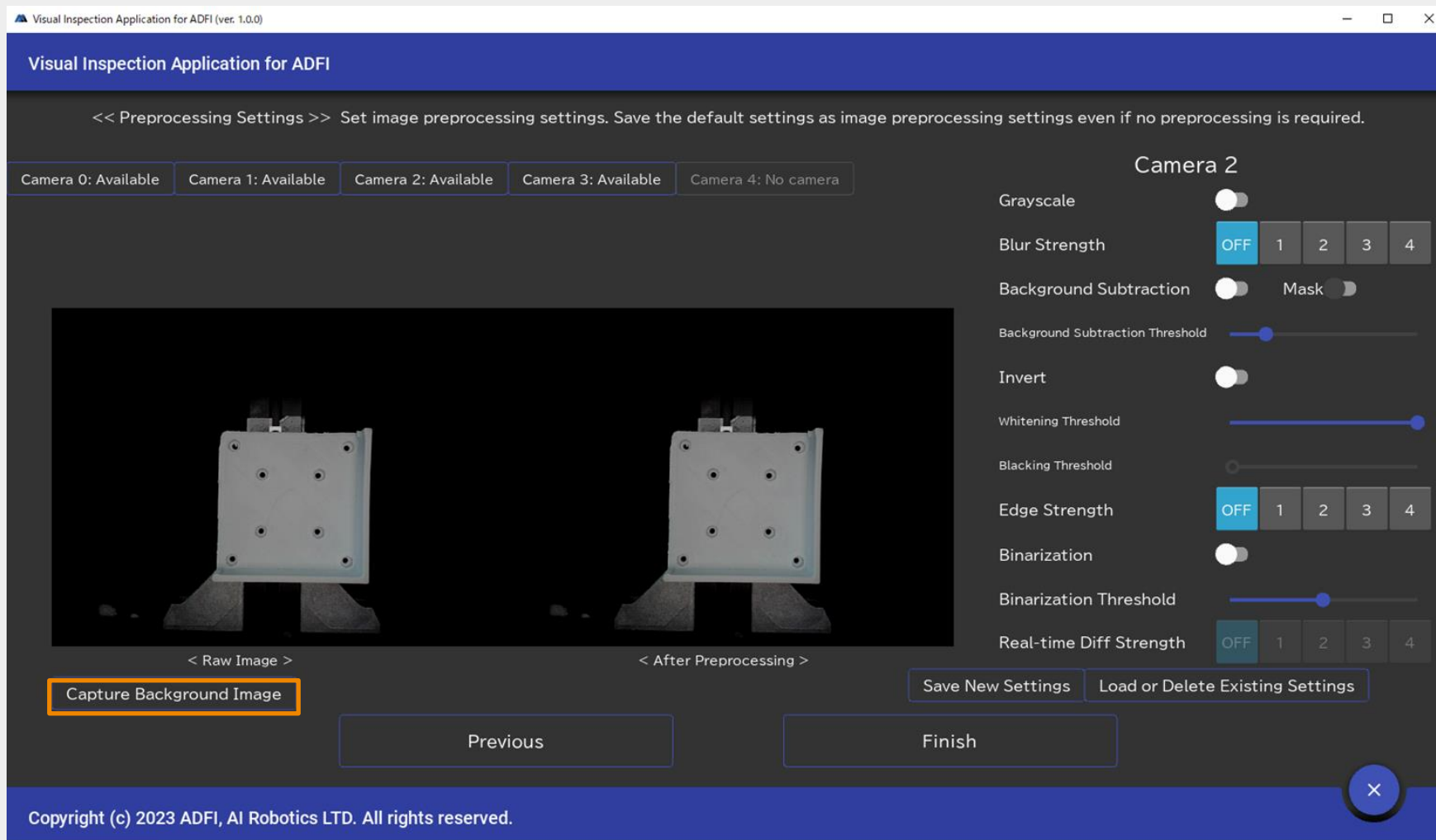- After specifying the area by dragging, please click "Save Area".
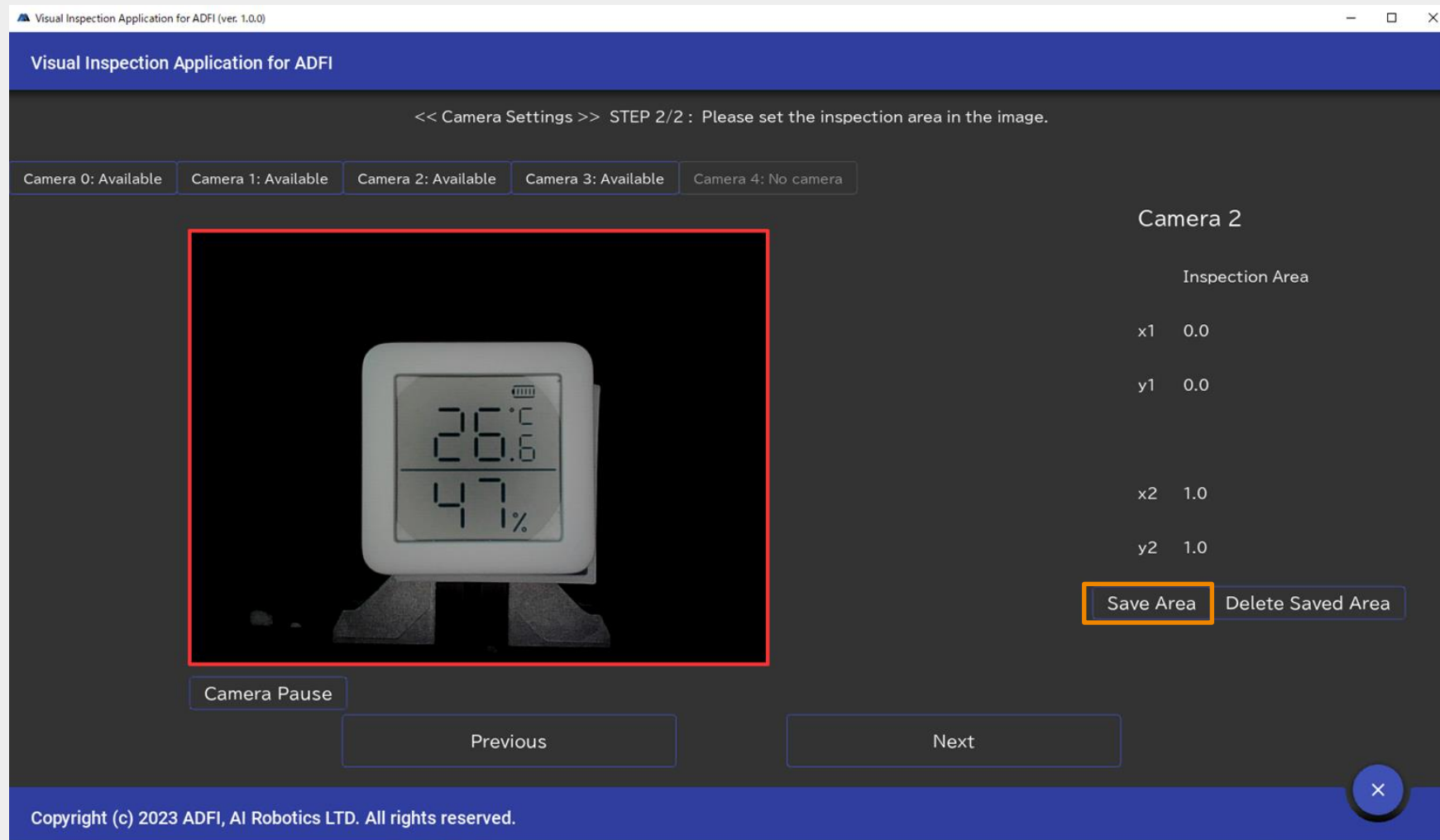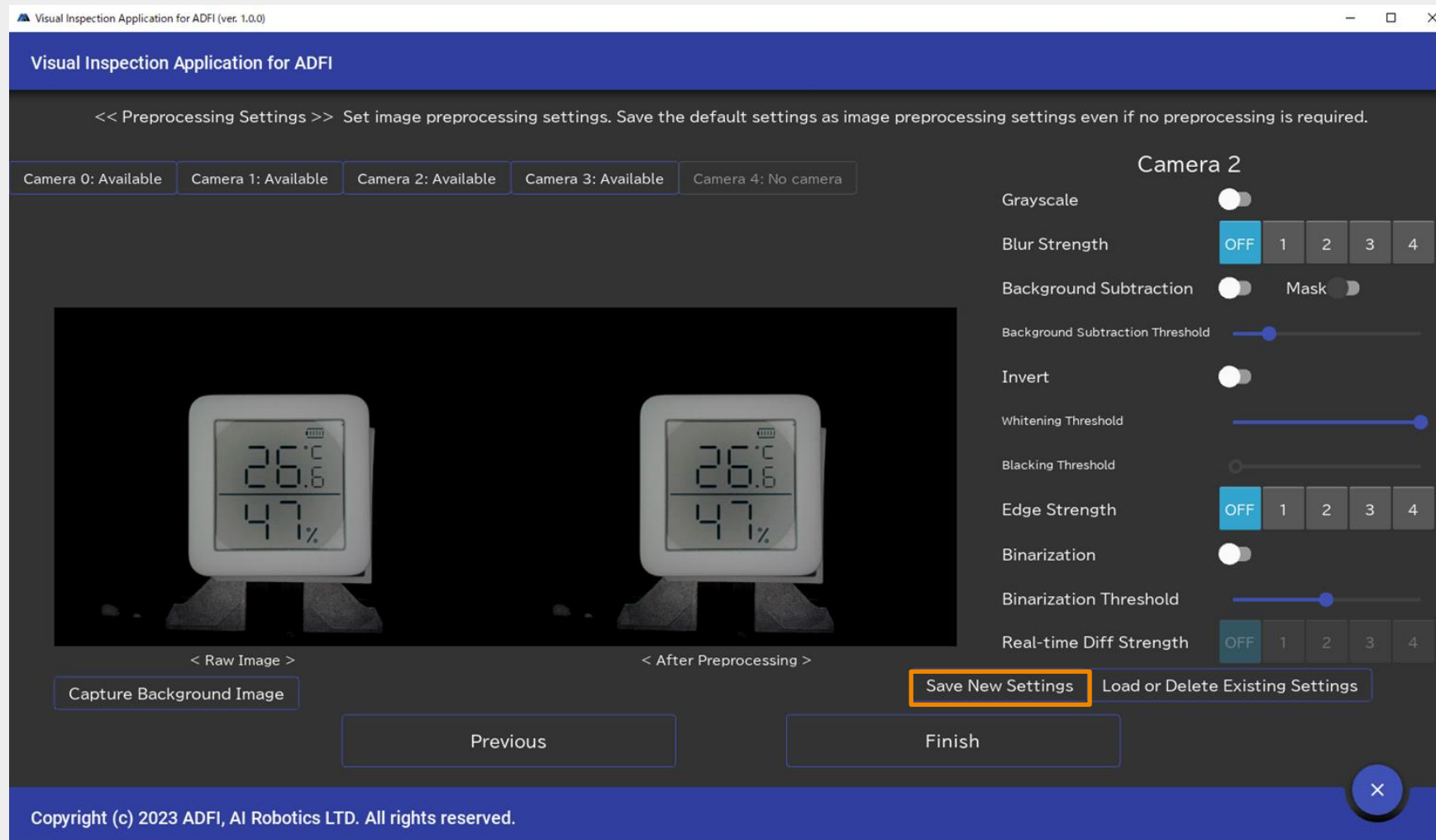
2. Camera settings

- Please click "Next".

3. Preprocessing settings

- Please click "Capture Background Image" with the object to be inspected removed (background only).
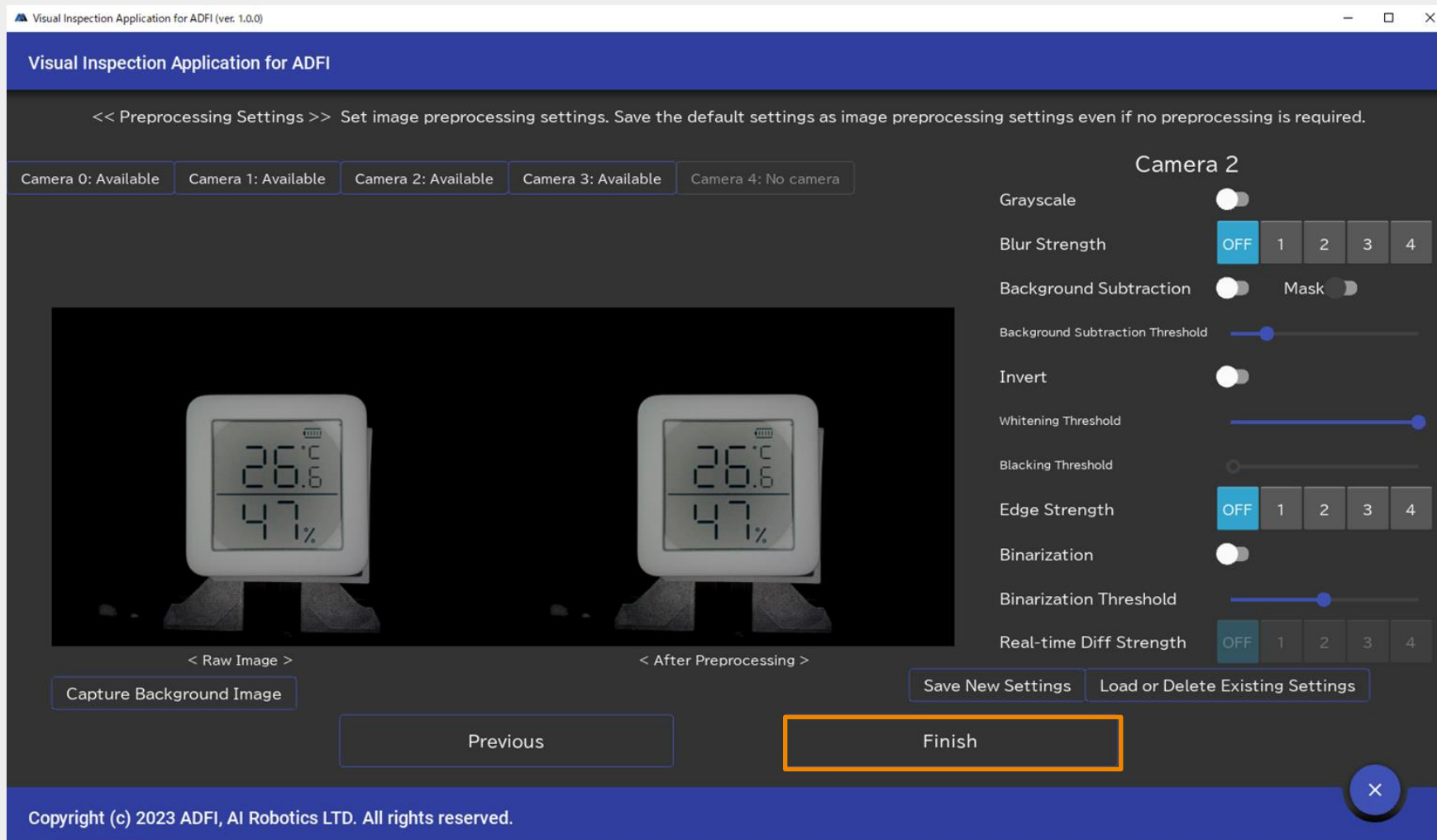
3. Preprocessing settings

- Image preprocessing can be set.
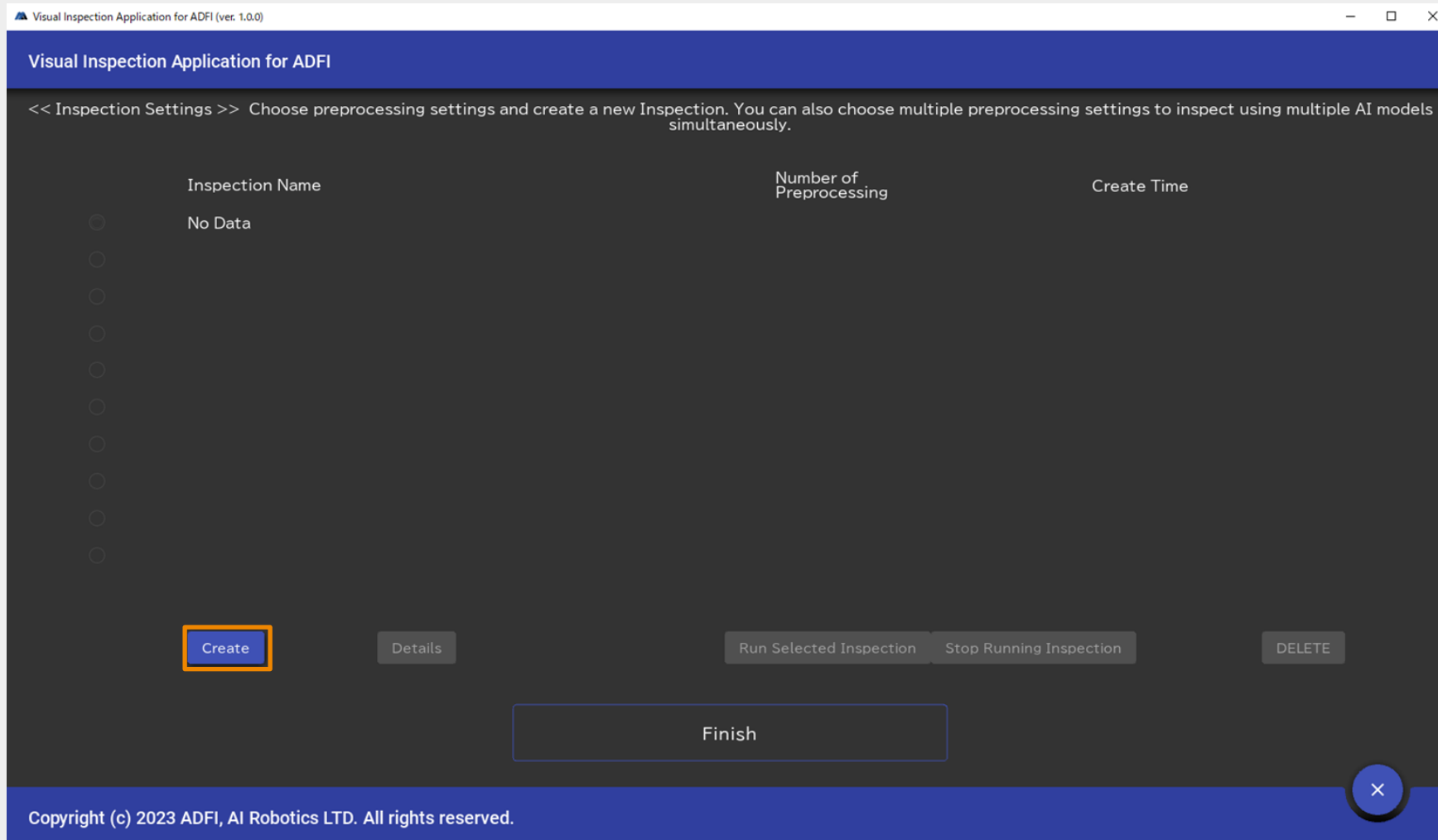- Even if no preprocessing is required, please click "Save new settings".

3. Preprocessing settings

- After saving the preprocessing settings, please click "Finish".
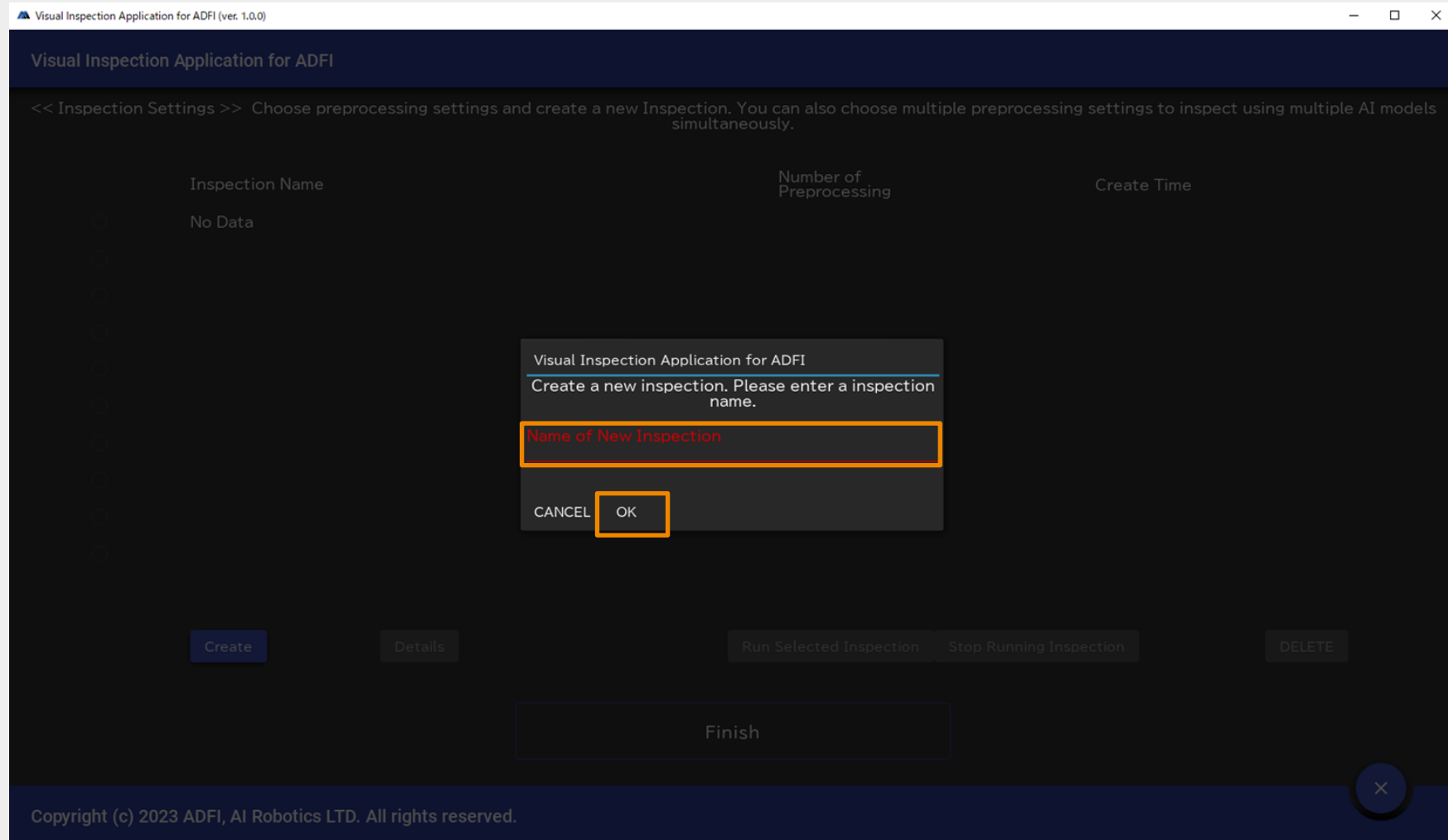
4. Inspection settings
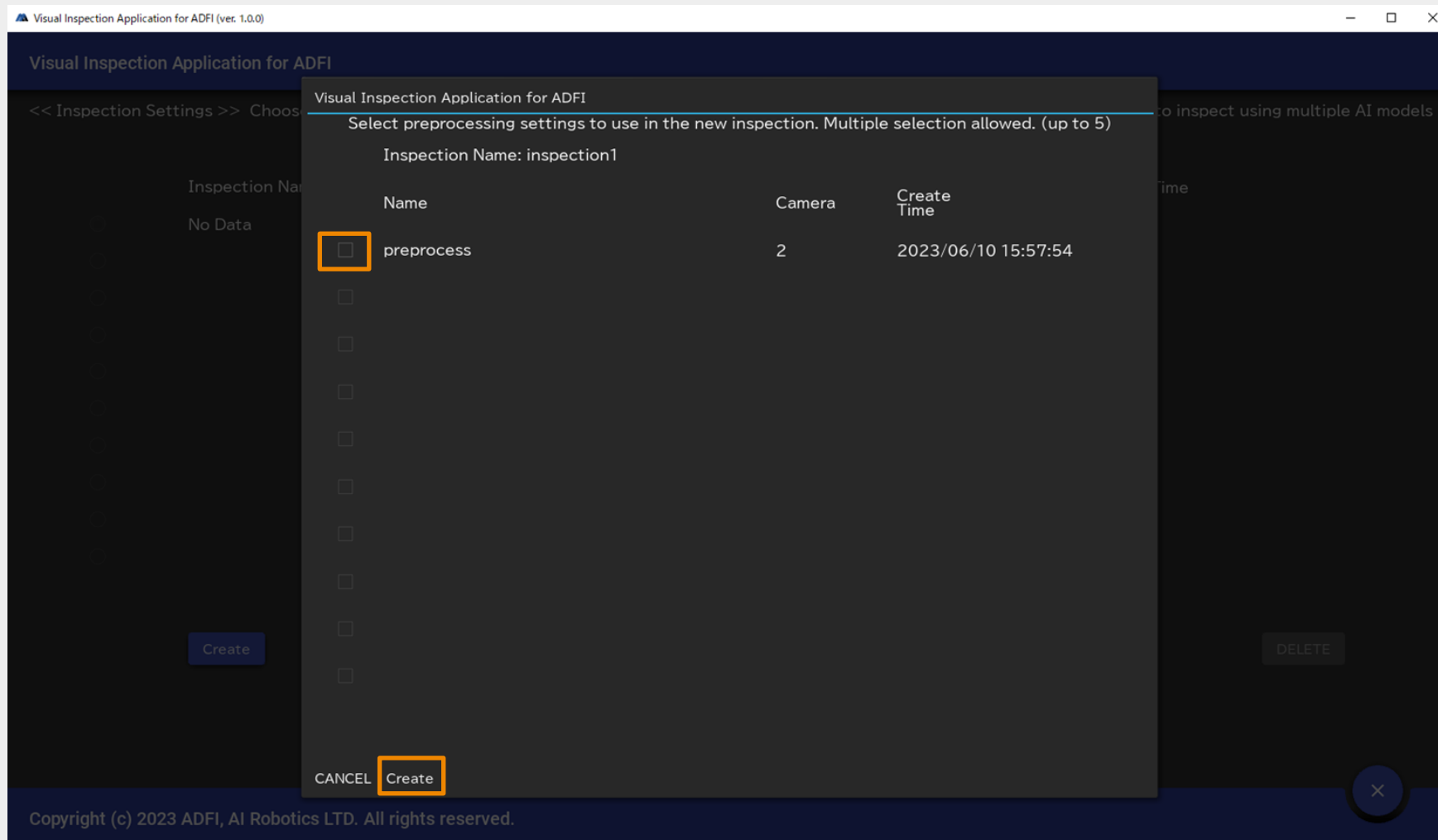
- Please create a new inspection.

4. Inspection settings

- Please enter a new inspection name.

4. Inspection settings

- Please select the preprocessing you created earlier and click "Create".

4. Inspection settings

- Please make sure the inspection you created is "Running" and click "Finish".
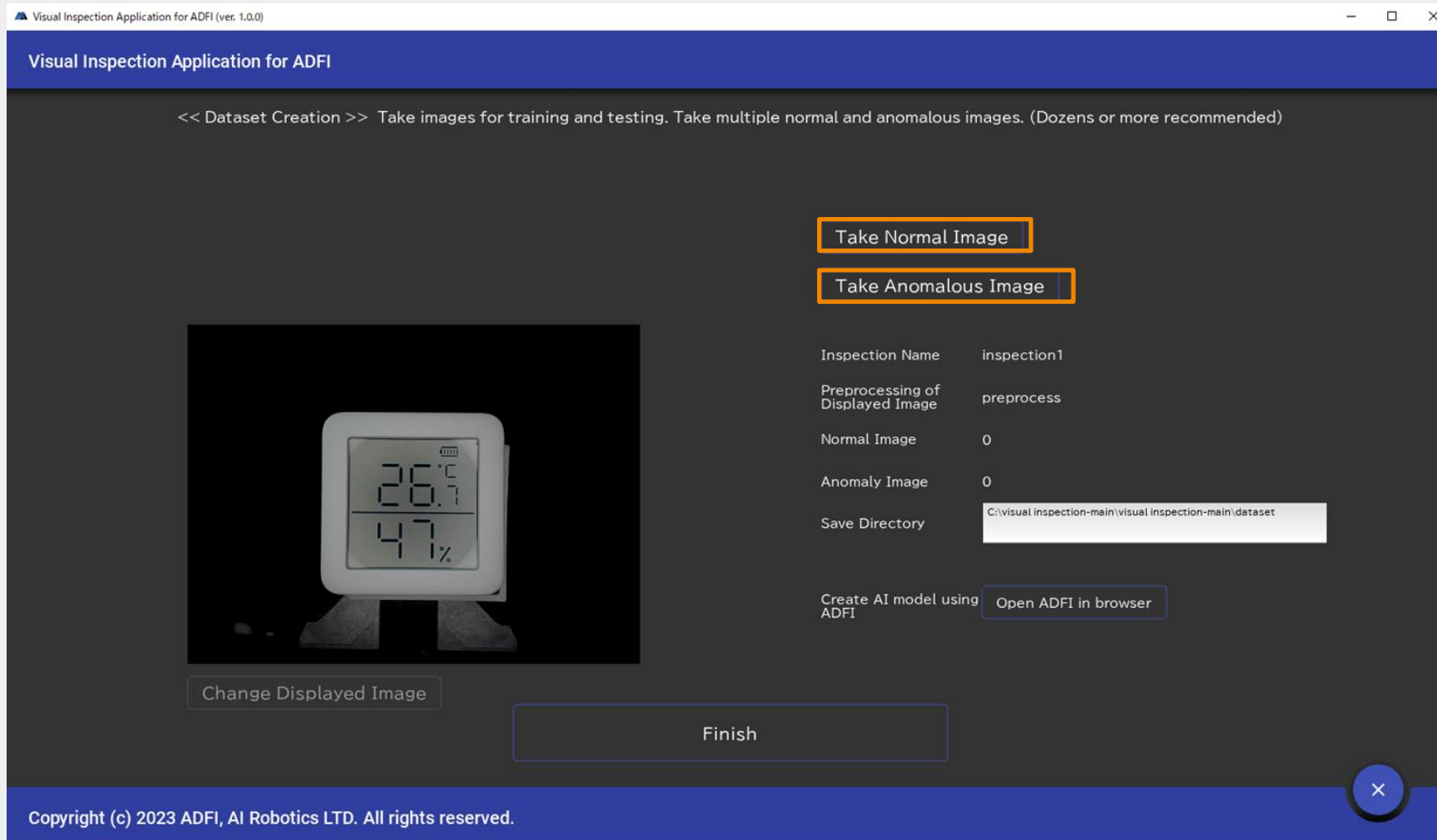
5. Dataset Creation

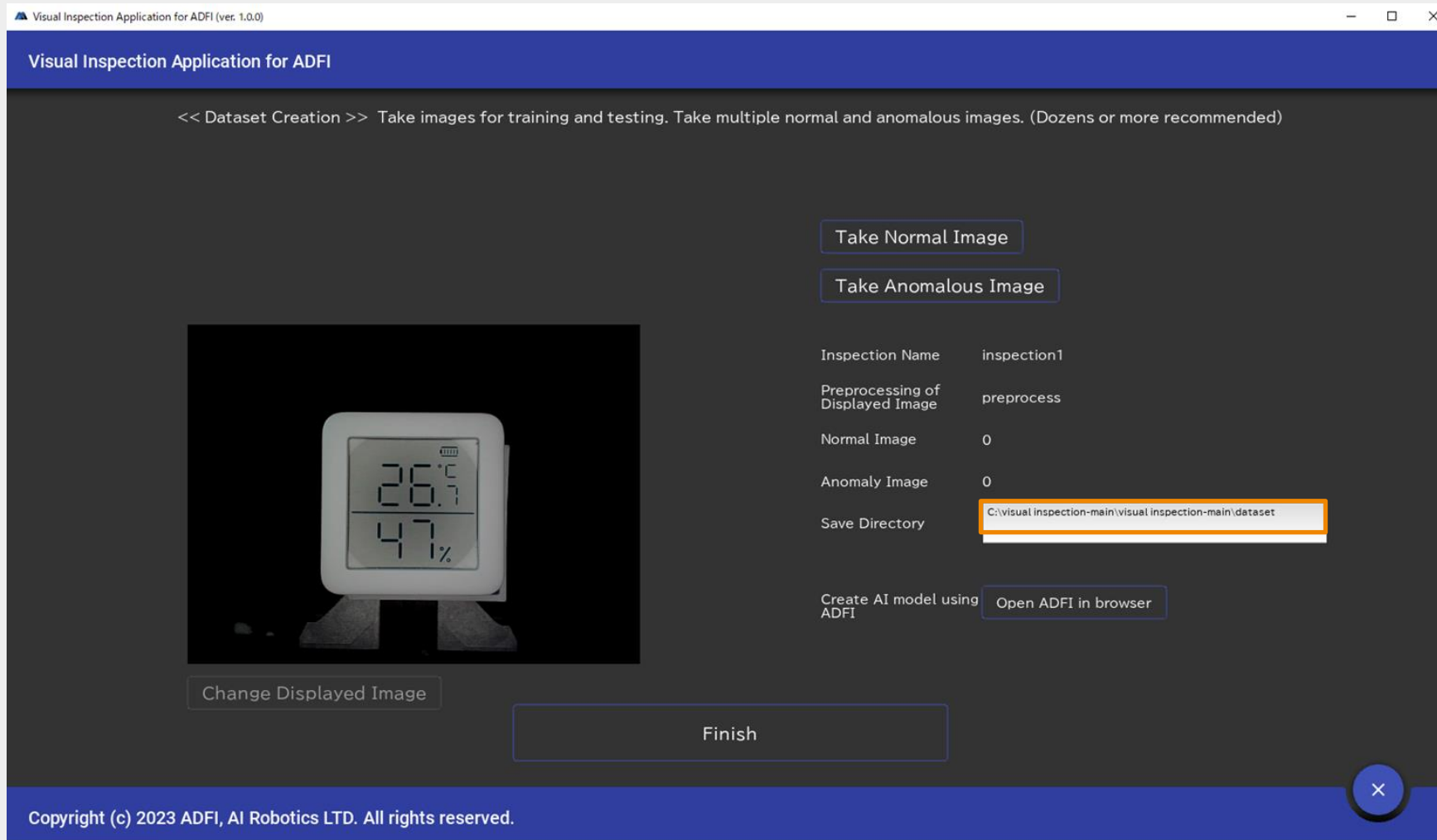● Please click "Dataset Creation" on the left menu.
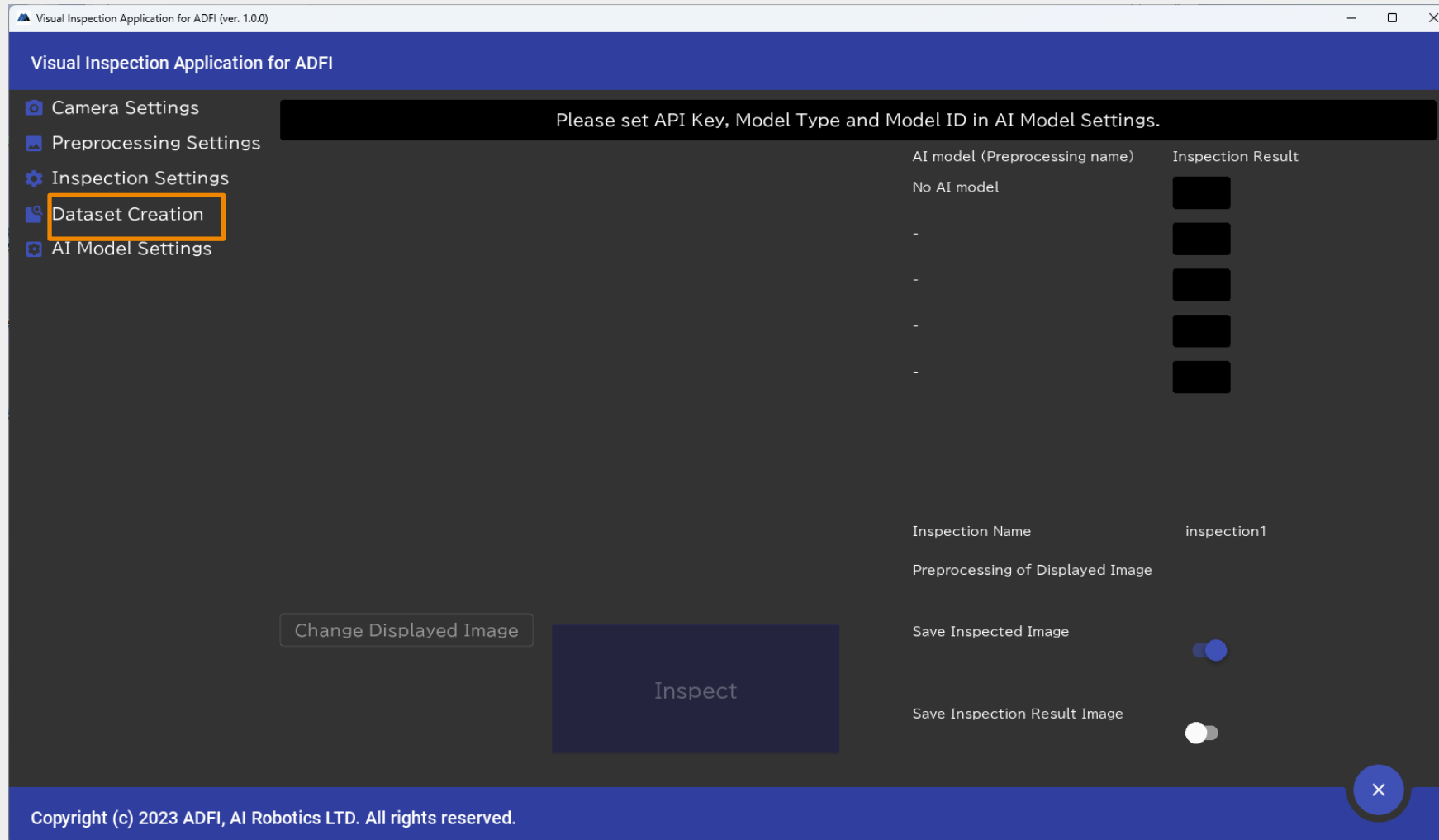
5. Dataset Creation

- Please take images for creating (training and testing) the AI model.
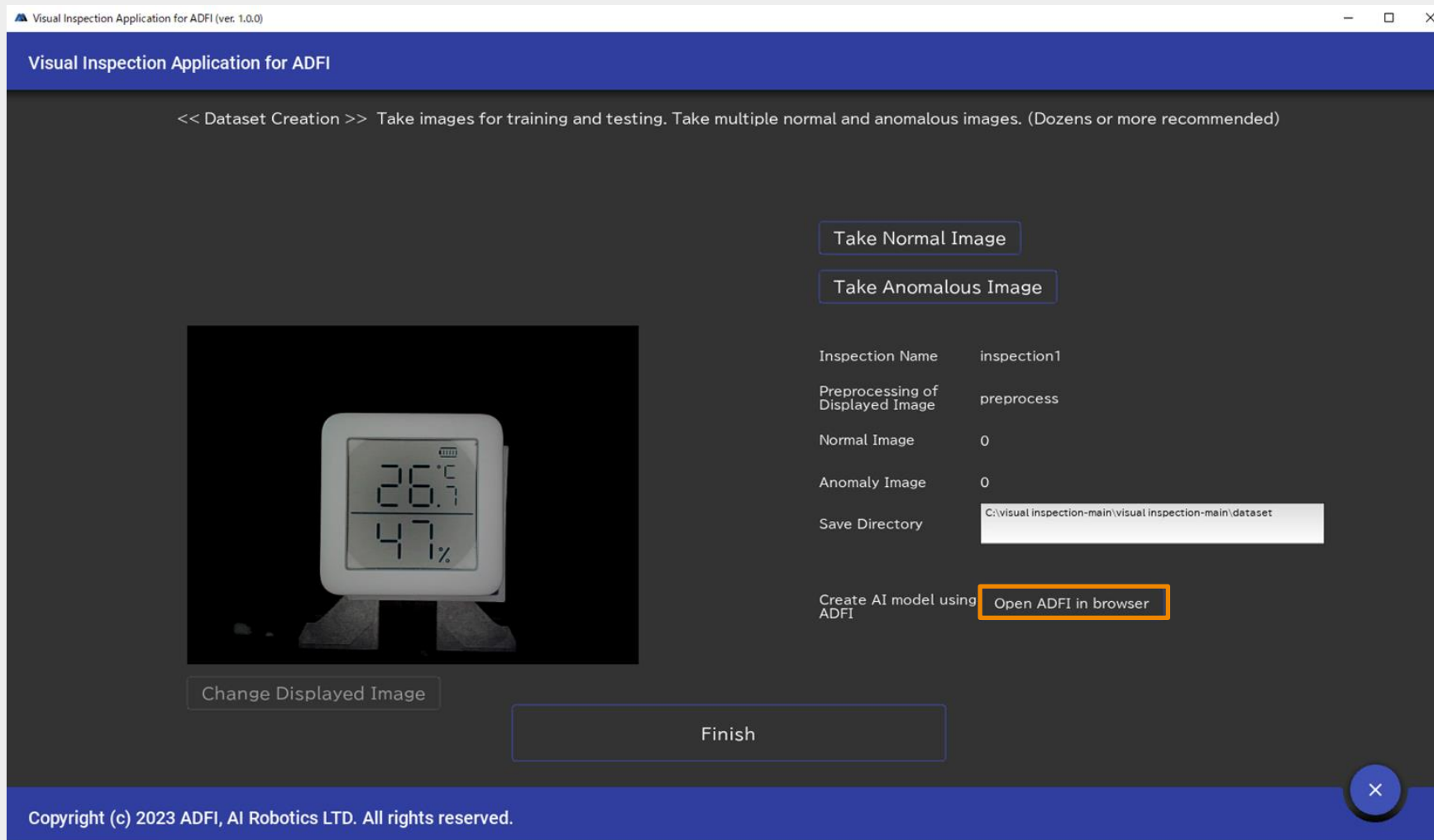- Please replace the object with other one after each image is taken.

5. Dataset Creation
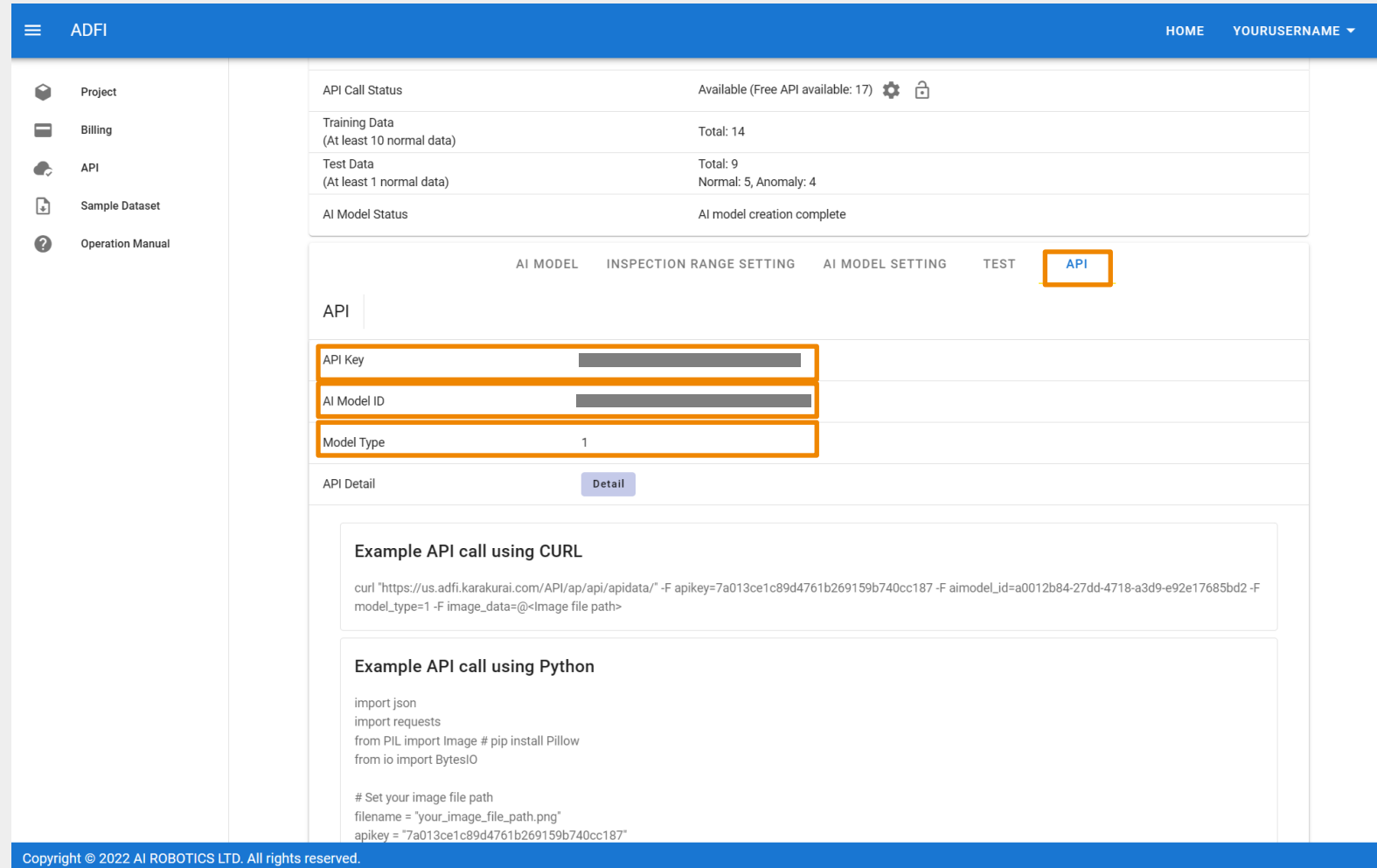

- The captured images exist in the "Save Directory".

5. Dataset Creation

- After taking enough images, please open ADFI and create an AI model.
- Please refer to the tutorial(https://adfi.jp/manual/) for how to create an AI model in ADFI.

5. Dataset Creation

- After creating an AI model in ADFI, please copy the values of API information (API Key, AI Model ID and Model Type) in the API tab of ADFI.

5. Dataset Creation

- Please click "Finish".

6. AI Model Settings

- Please click " AI Model Settings" on the left menu.

6. AI Model Settings
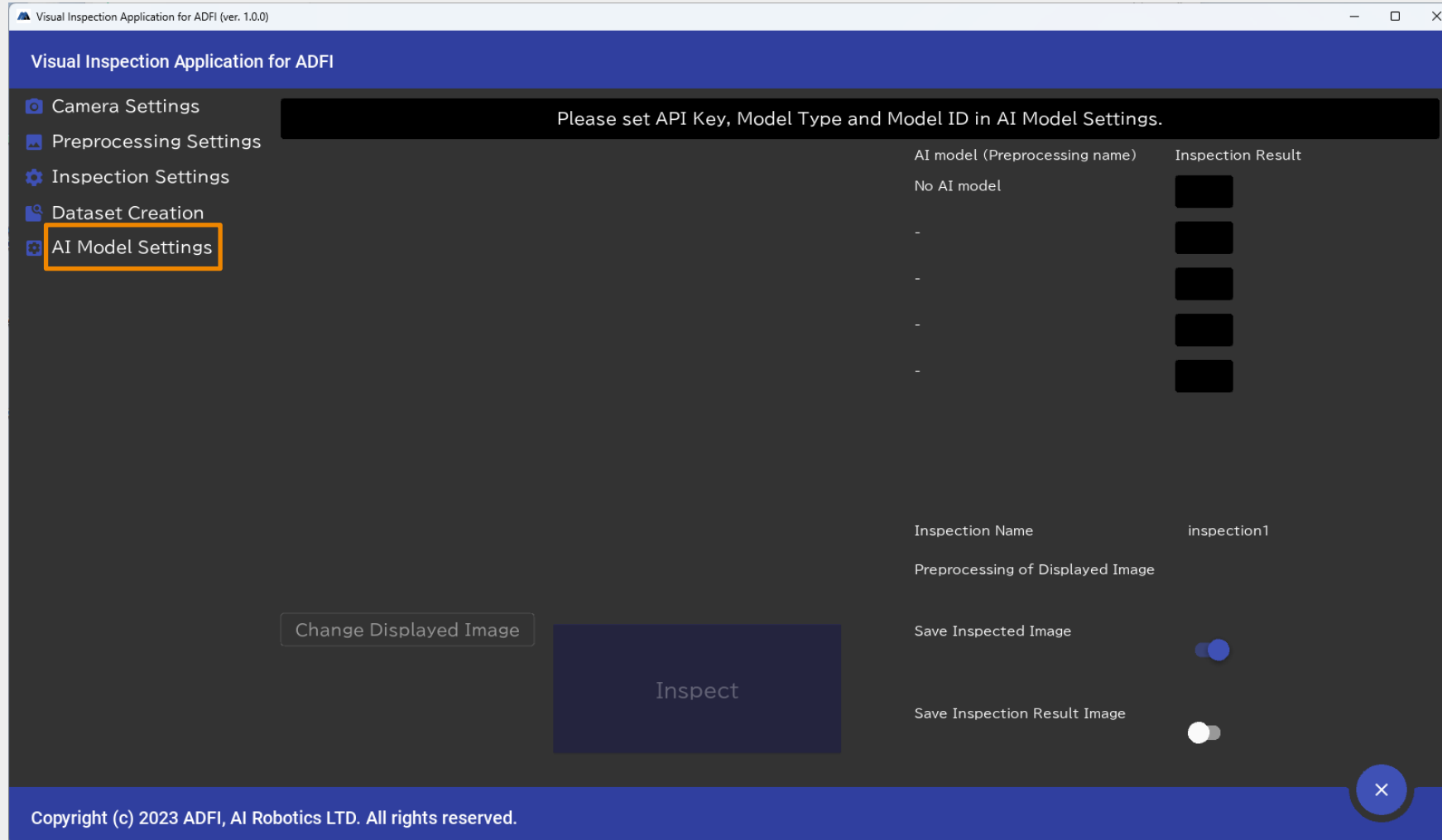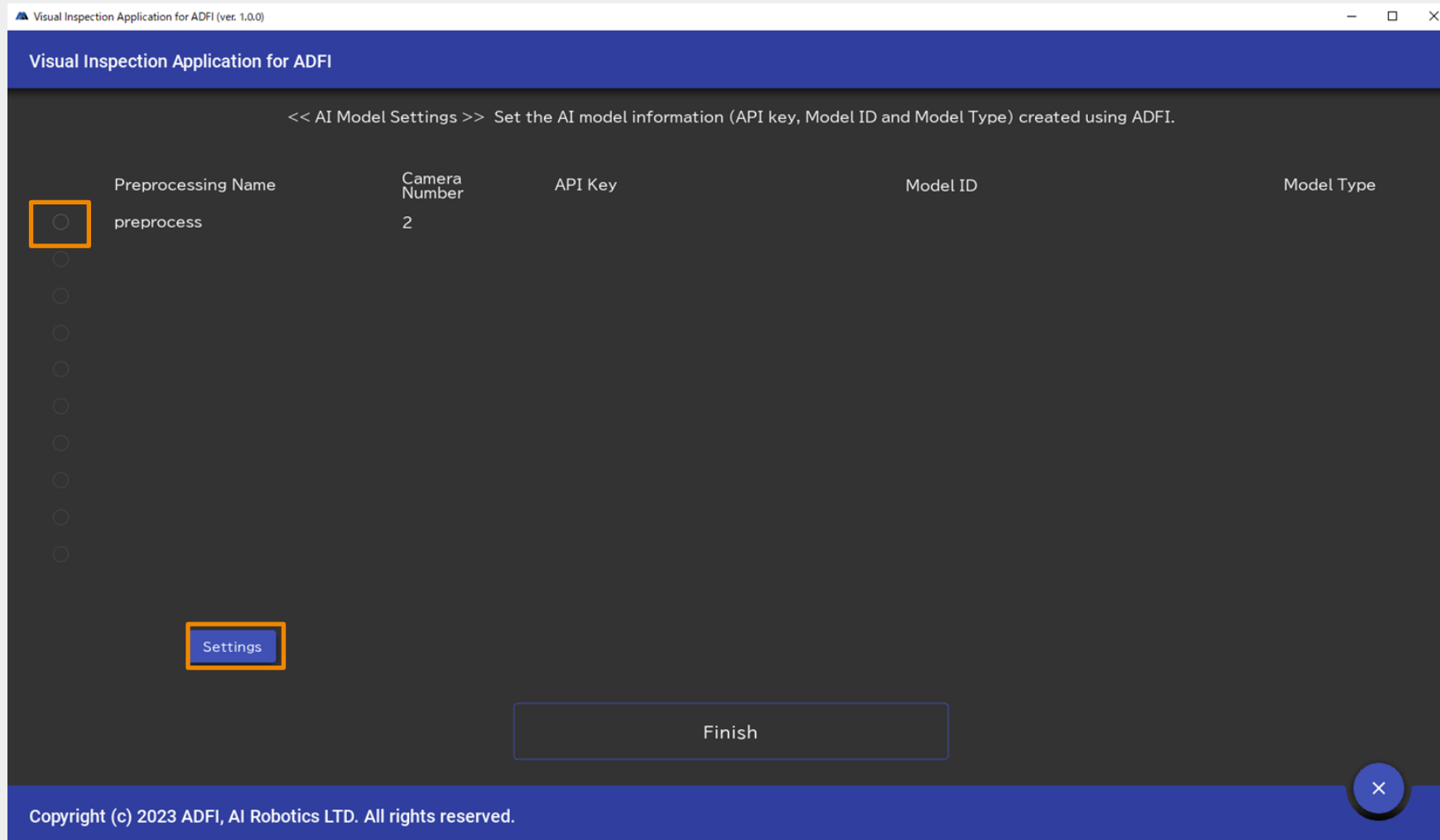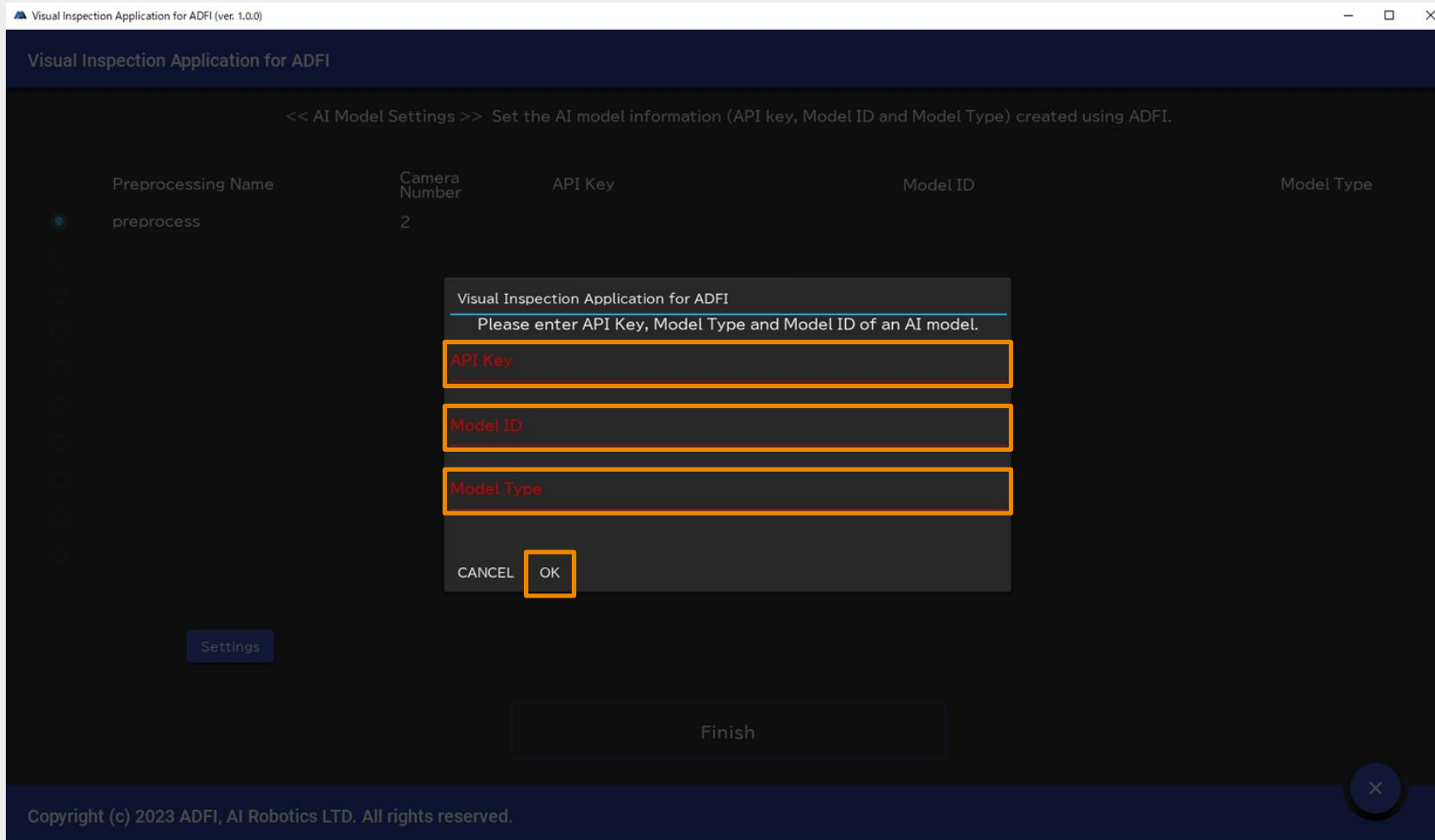
● Please select the preprocessing you created earlier and click "Settings".

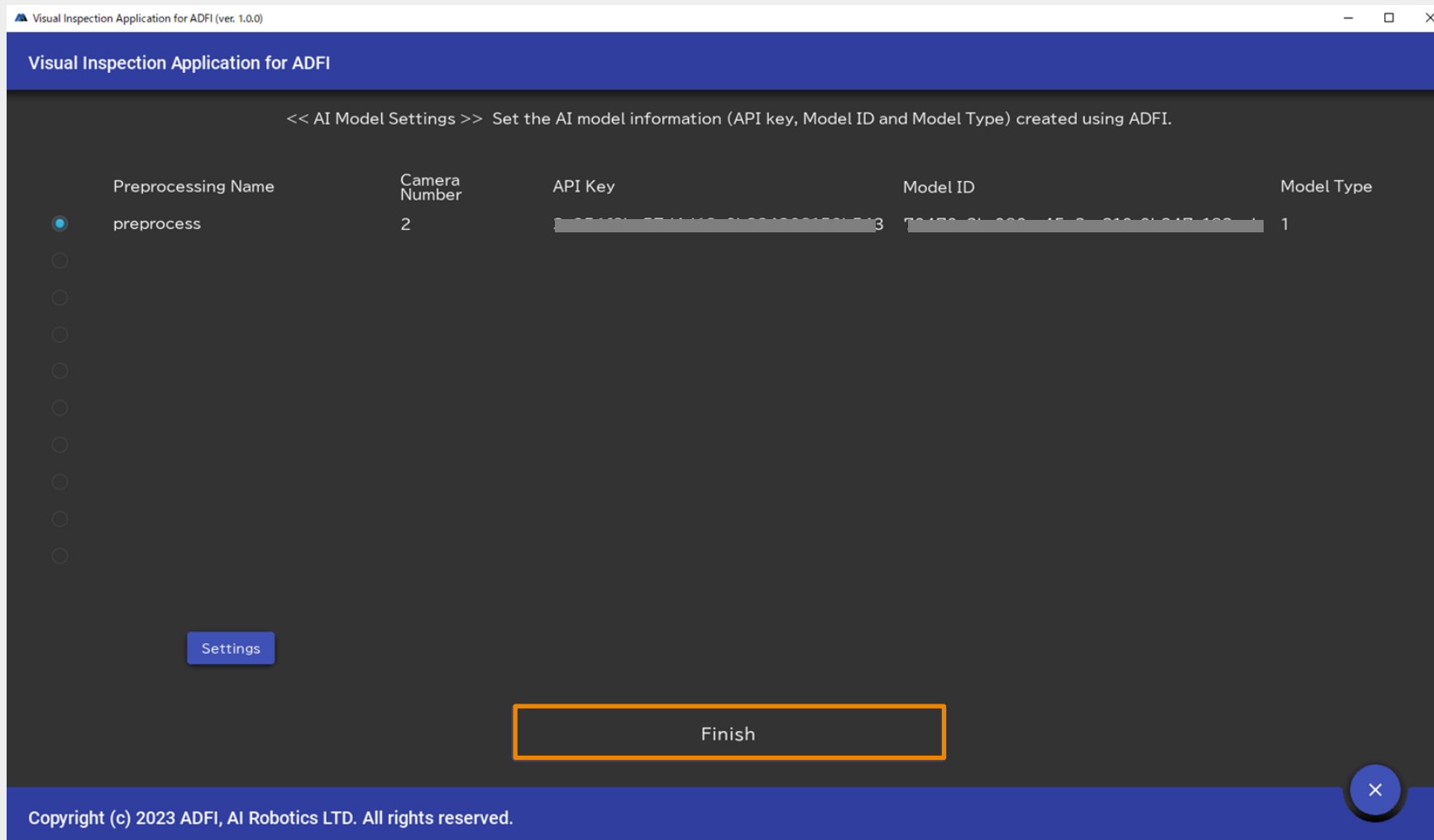# 6. AI Model Settings

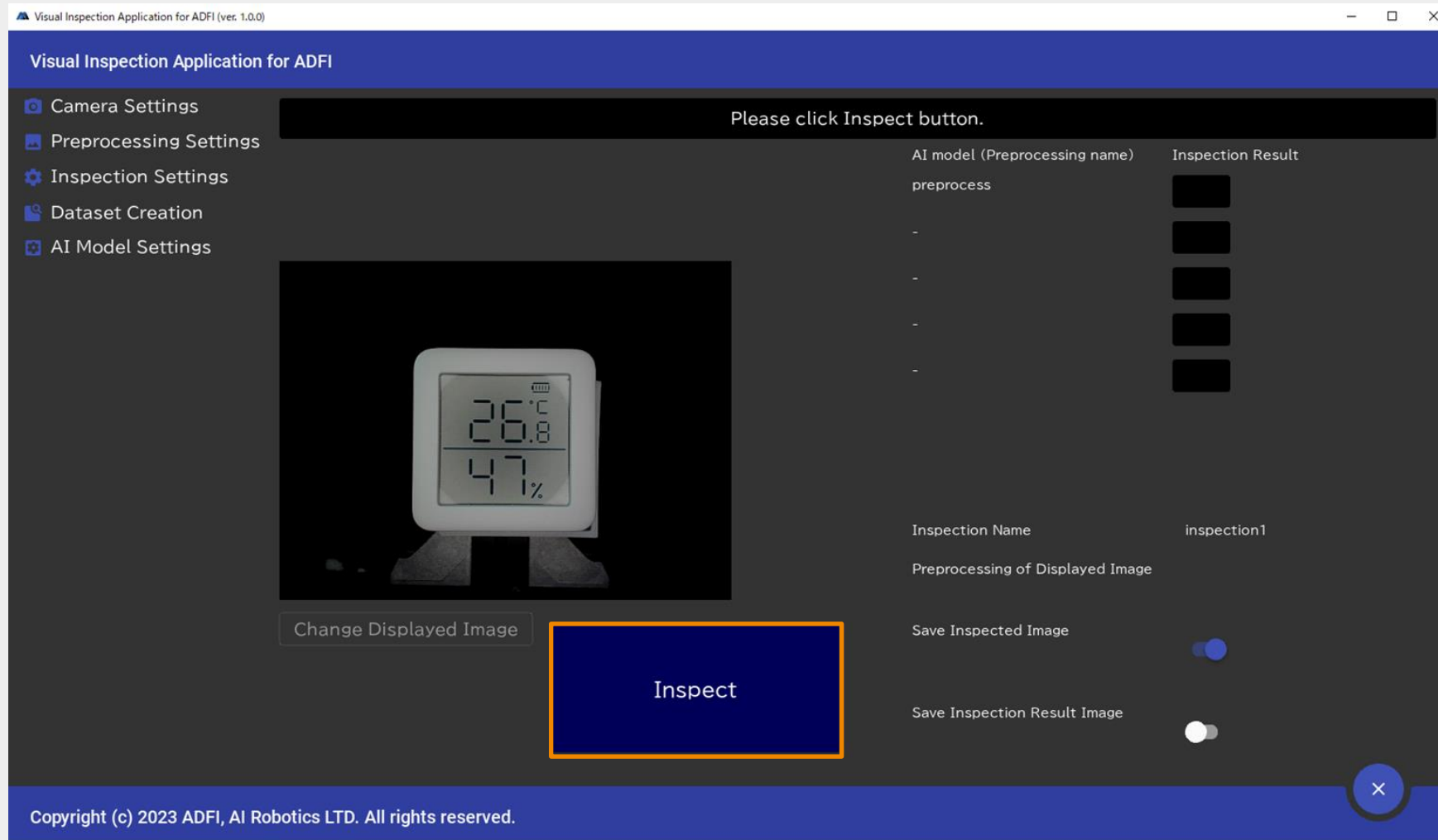- Please enter the information of the AI model created with ADFI and click "OK".

6. AI Model Settings

- Please click "Finish".
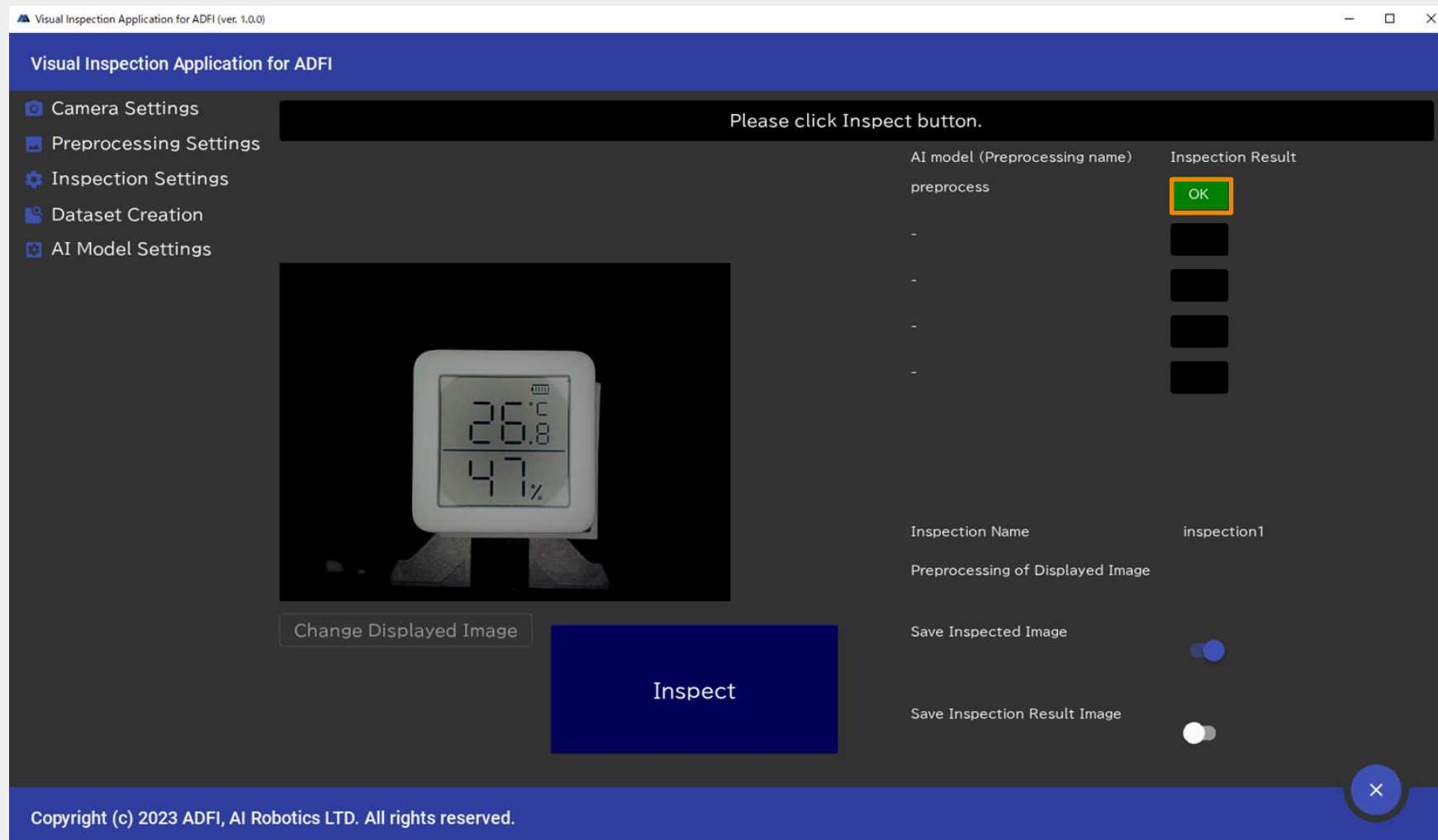- Setup is complete. Inspections can be started at any time.

7. Inspection

- Please place the object you want to inspect and click "Inspection".

7. Inspection

- The inspection result (OK, NG or Not-clear) is displayed on the upper right.

7. Inspection

- You can view the saved images by clicking on the result(OK, NG or Not-clear) in the top right.