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Coding Task

Show us your computer vision abilities!

To help us better understand your problem-solving skills and your coding style, we would like you to take part at a small computer vision task that you might encounter in your future work with us. Take all the time you need. The length of time it takes to complete the task has no bearing on our decision. **Feel free to contact us at any time if you have any questions.**

Problem

When building concrete floors, there are usually these three steps:

1) Formwork   2) Reinforcement (steel meshing)   3) Concreting

Task: Create a script which tracks the progress of one process of your choice (formwork **or** reinforcement **or** concreting)

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Suggestions

Use opencv-python (cv2)

1) Formwork

Suggestion:
Count how many pixels are yellowish inside this white rectangle.

2) Reinforcement (steel meshing)

Suggestion:
Count how many edges are inside this rectangle.

3) Concreting

Suggestion:
Count how many edges are inside this rectangle.

Simplification: It's okay if the result is not perfect. We just want to see your approach to the given problem.

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Framework

Download the .zip folder from the email we sent to you.

There you can find three mp4 files for the three processes. Chose the one that suits you most!

Use the script that loads the video frame by frame and fill it with your code. We are looking forward to your ideas!

Input (e.g. concreting)

Output Examples

Progress: 62 %

Edges: 9896

Take your time and feel free to ask anytime!
We are very much looking forward to your results.

Best,
Team oculai

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