Hey!

As part of your evaluation, I'd like you to complete a short computer vision-based assignment to help assess your approach to problem-solving, code clarity, and general thinking under ambiguity.

🔧 Assignment: Identify and Mark Surface Defects

You're given an image of a manufactured metal rod that has multiple defects (you can find one online). Your task is to write a basic computer vision script that:

1. Loads the image.
2. Applies any reasonable preprocessing (e.g., grayscale, blurring, thresholding).
3. Identifies visible **surface defects** (e.g., scratches, holes, dents) using OpenCV or similar tools.
4. Draws bounding boxes around the detected defects.
5. Saves an output image called `output.jpg` showing the marked defects.

🎯 Bonus (optional if time permits):

- Count and print how many defects were found.
- Estimate the size of each defect in pixels.

📦 What to Submit:

- A `.py` script or Jupyter notebook (`.ipynb`)
- A `README` (max 5 lines) describing your logic and any assumptions you made
- The final image `output.jpg` with defects marked

⏱️ Expected time: 1–2 hours

No need to go overboard—it doesn't need to be perfect. The goal is to understand your approach and clarity of execution.

Let me know if you have any questions. Looking forward to your submission. Please send the assignment by end of day on June 6th.

Best,
Milaap