

# Project Handwritten Digits Recognition

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**Due** Mar 25 by 11:59pm      **Points** 10      **Submitting** a file upload      **File Types** zip  
**Available** Mar 13 at 12am - Mar 31 at 11:59pm 19 days

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CMPE 258 Project I

Handwritten Digits Recognition

1. Project Due:

March 25<sup>th</sup> (Thursday)

2. Submission Channel:

CANVAS

3. Submission file format and the material

(3.1) Zip file;

(3.2) your python code/programs and all necessary photos if needed to verify your code;

(3.3) readme.txt to clear define the steps to execute your program;

(3.4) 5 seconds video clips to show the execution result.

4. Project requirements:

(4.1) Input live video or video testing file;

(4.2) Perform pre-processing Computer Vision functions to localize the ROI (region of interests). Each digits should be identified as one separated ROI. You should have written 4 digits, so you should have 4 separate ROIs;

(4.3) Draw bounding box for each ROI;

(4.4) Perform processing task to read each ROI as a new image, and compute its aspect ratio (Width vs. Height), and form a new square image with the bigger value of either width or height;

(4.5) resize the square image to 28 x 28 and convert it to grey scale;

(4.6) use the sample code given in the class to identify the digit, and

(4.7) for each identify the digits, plot a caption (text) by the bounding box and show the detection result.

5. This project counts 10 points.

No Late Submission.

(End)