

## Project 2

### Coin tray

12 points total

## Program 1

Find and draw contours over each coin in images `tray[1-8.jpg]`.

Count (and display) how many coins are:

1. Large and inside the tray
2. Large and outside of the tray
3. Small and inside the tray
4. Small and outside of the tray

Calculate and display the area of the tray.



Figure 1: Example output of Program 1 (image `tray8.jpg`)

## Grading

- 2 points - Finding the contour of the tray and calculating its area.
- 4 points - Use of Hough transform to find as many coins as possible\*.
- 1 point - Differentiating coins inside and outside of the tray.
- 1 point - Differentiating small and large coins.
- up to 4 points - Turning the algorithm to work correctly on all images\*.

12 points total.

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\*More is better but does not require 100% accuracy