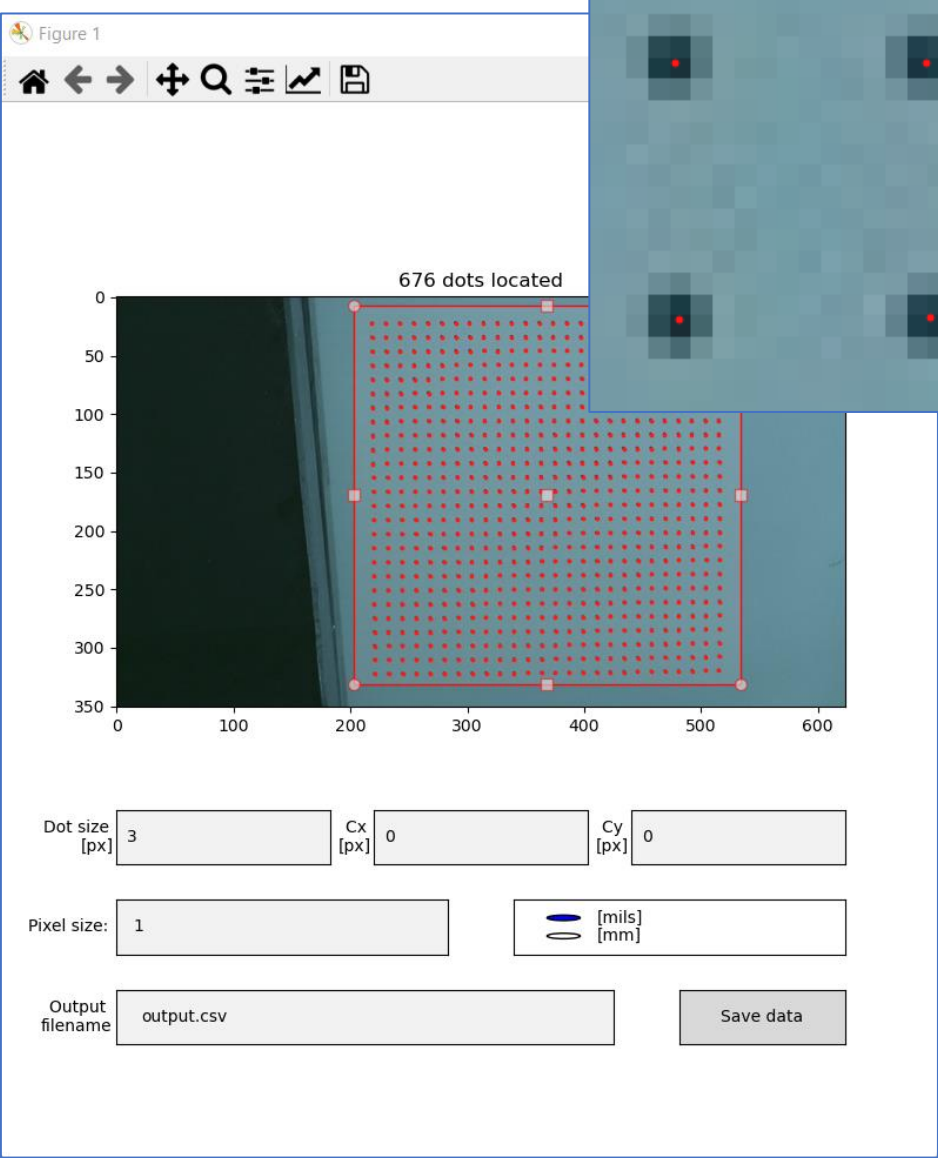


Dot Finder Tool

Interface:



Zoomed in:

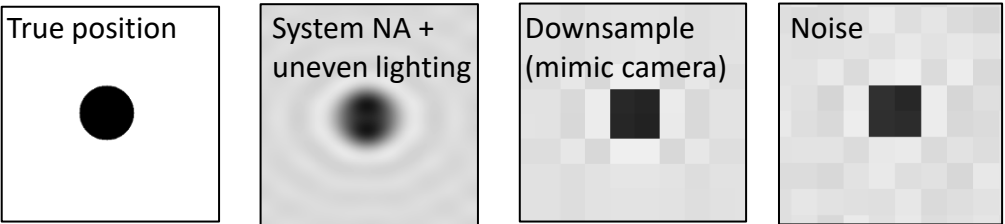
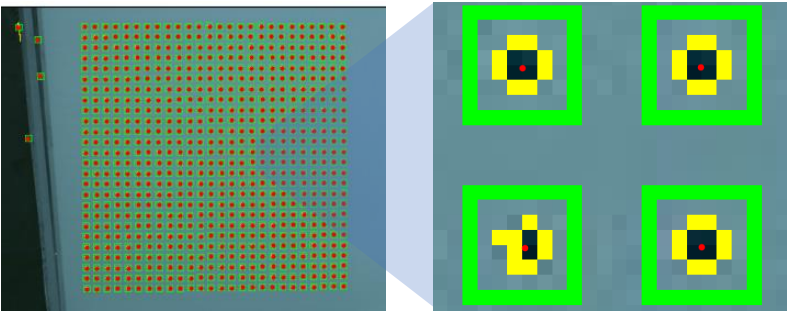
Interface:

- Requires **python 3, numpy, matplotlib, cv2**
- Adjustable ROI, dot size for fine tuning with live feedback
- Define origin and pixel size, export relative position in real units to CSV or tab-separated
- Example usage:
 - `HoleLocator('G:/My Drive/Documents/Fathom_Coding_Challenge/sim_50px.png', dot_size=50)`

Algorithm summary:

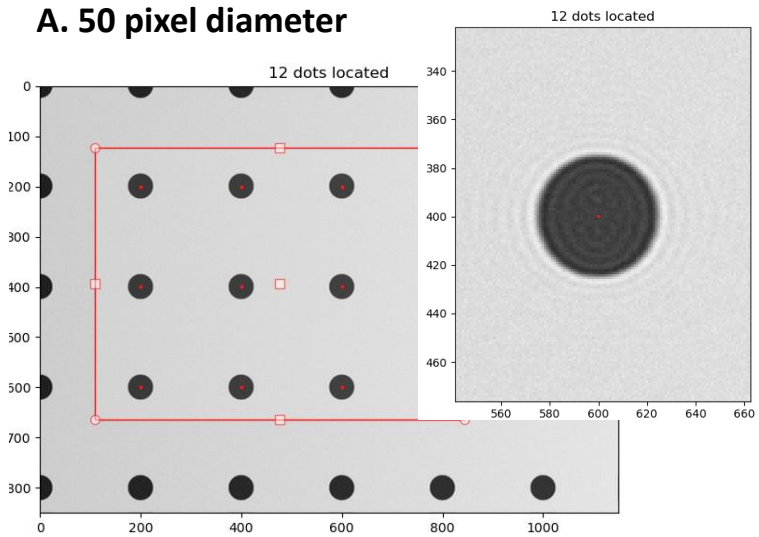
- Contour ID for rough position (yellow)
- Threshold within local window (green)
- Center of mass calculation (red)

Tested via simulation:



With ~5% noise, accurate to ~.03 pixels

A. 50 pixel diameter



B. 2 pixel diameter

