

## Supplementary information

### Image-based fuzzy logic control for pressure-driven droplet microfluidics as autosampler for multimodal imaging microscopy

Fabian Ott <sup>a</sup>, Tobias Meyer-Zedler <sup>a</sup>, Michael Schmitt <sup>b</sup> and Jürgen Popp <sup>\*a,b</sup>

<sup>a</sup> Leibniz Institute of Photonic Technology (Leibniz-IPHT), Member of Leibniz Health Technologies, Member of the Leibniz Center for Photonics in Infection Research (LPI), Albert-Einstein-Str. 9, 07745 Jena, Germany

<sup>b</sup> Institute of Physical Chemistry (IPC) and Abbe Center of Photonics (ACP), Member of the Leibniz Center for Photonics in Infection Research (LPI), Friedrich Schiller University Jena, Helmholtzweg 4, 07743 Jena, Germany

#### Supplementary videos

512px\_3s\_hold.mp4:

Sequence of 3 microfluidic droplets positioned in the center of the main ROI by an image-based FLC system and held for 3 seconds.

1024px\_10s\_hold.mp4:

Sequence of 2 microfluidic drops positioned in the center of the main ROI by an image-based FLC system and held for 10 seconds.

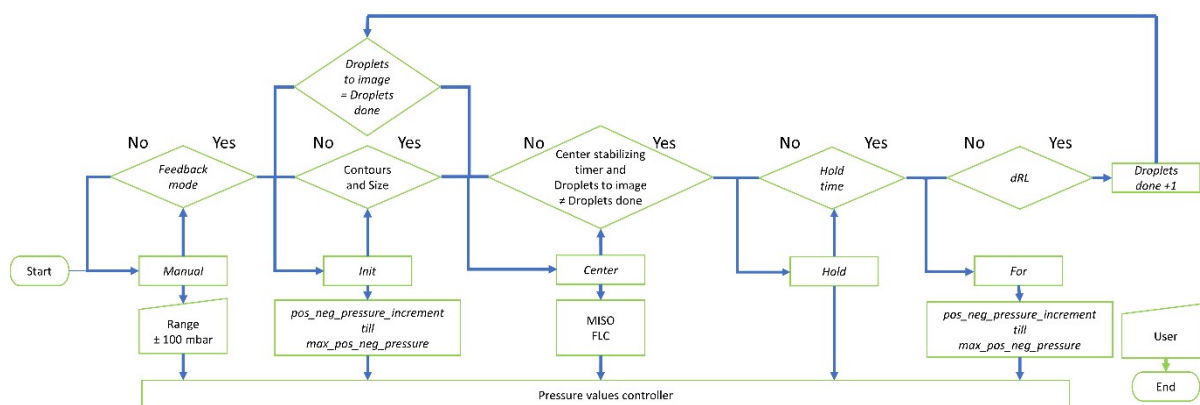


Figure 1: State machine flowchart

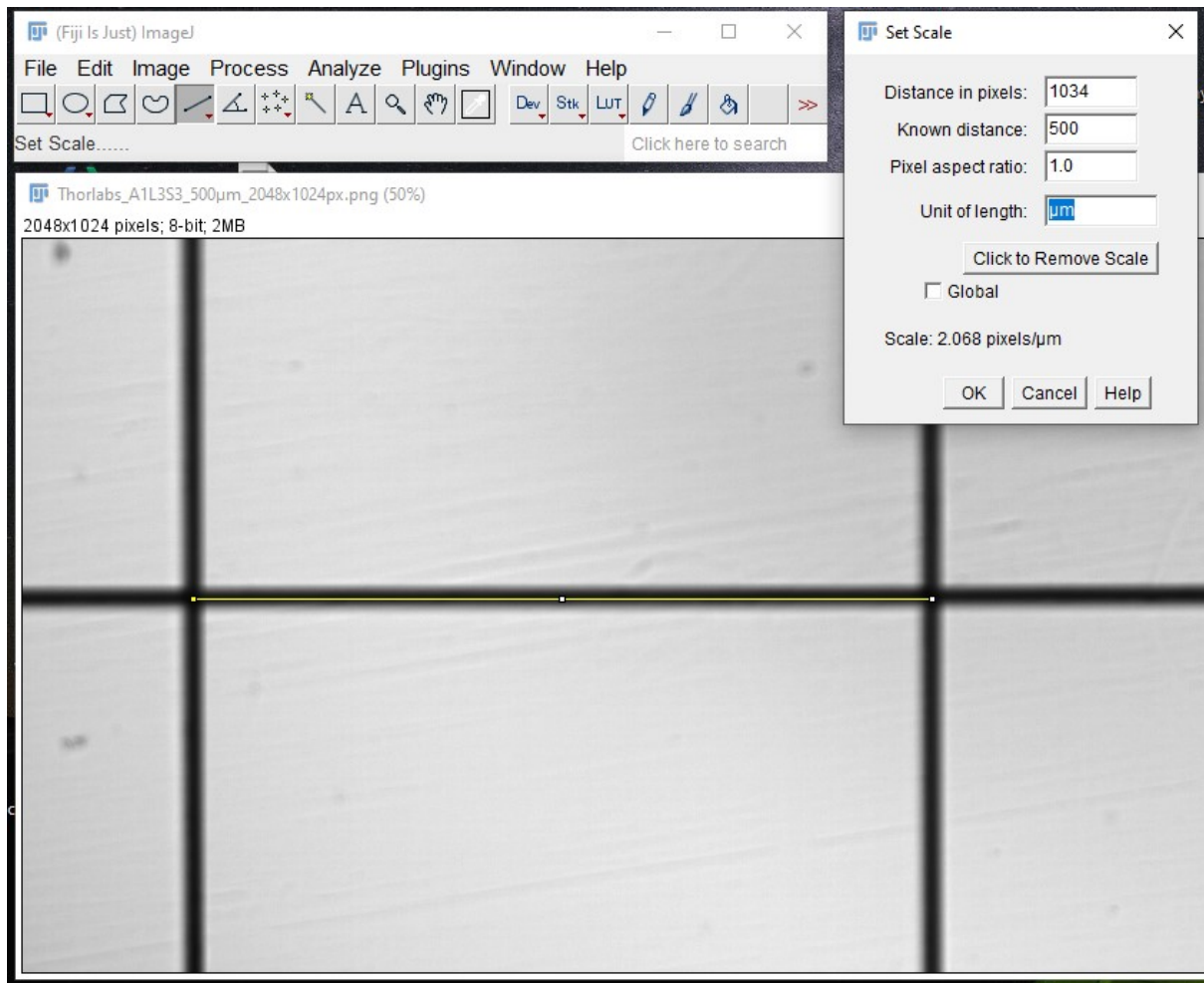


Figure 2: Screenshot of calibration result