

Step 1: Cell segmentation

- Modified triangle threshold method to choose threshold intensity
- Object detection
- Largest object selection



Step 2: Filopodia detection

- Region filling of the selected largest object
- Opening operation to peel off filopodia
- Adaptive structuring element selection
- Size / shape filtering
- Detection of combined filopodia



Step 3: Length estimation

- Thinning
- Counting the number of pixels