eZTRACK

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%% EZTrack
% Original script written by Andreas Braun (andreas.braun_at_crg.eu)
% Modified by Matthieu Louis (mlouis_at_crg.eu) and Ajinkya Deogade
% Purpose: basic script aiming at tracking a single larva freely moving in a Petri
% dish
% Instructions: run this programm in the folder that contains the image
% sequence to be analyzed. This routine requires the image analysis package
% of Matlab.
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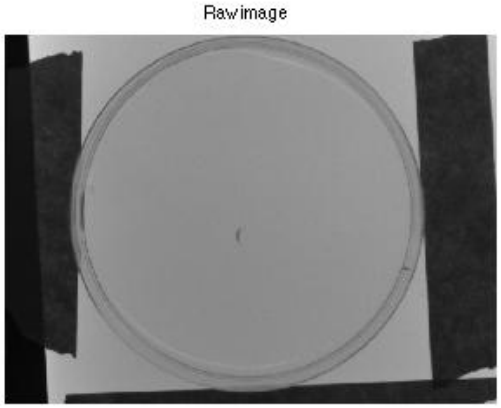
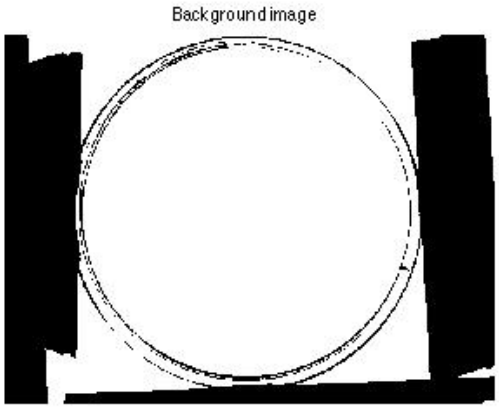
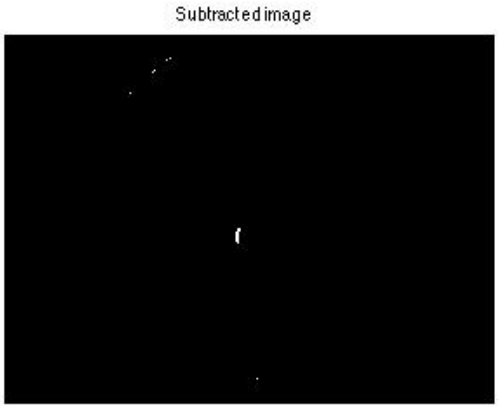
https://github.com/LabLouis/ezTrack_2



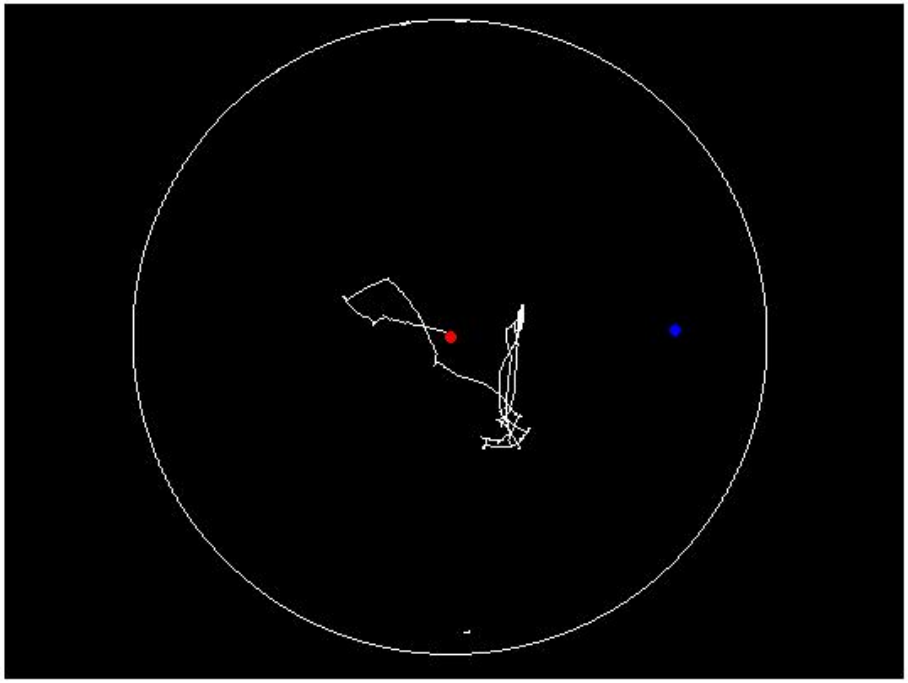




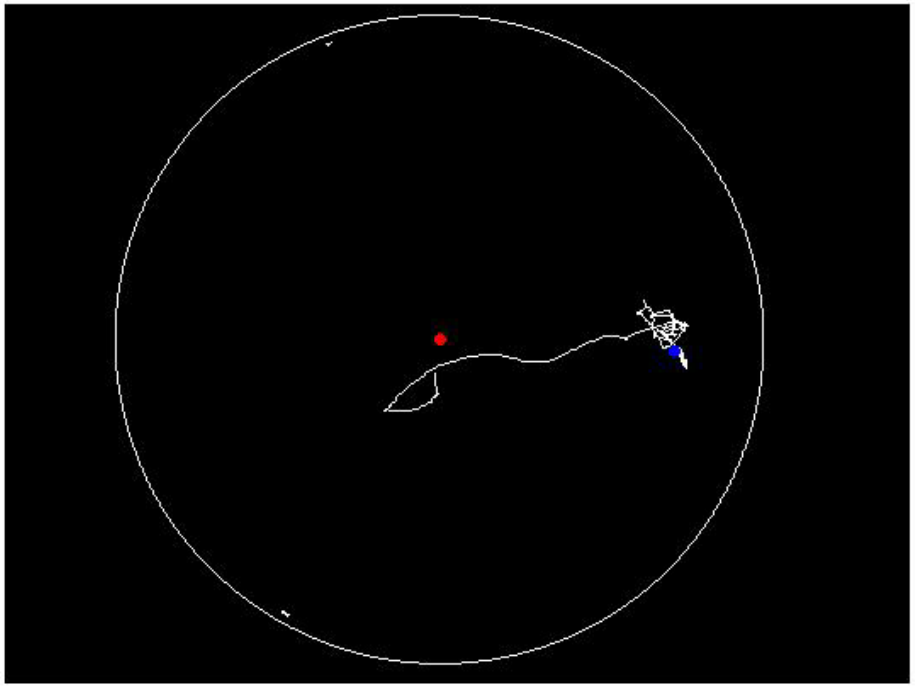
Steps in tracking

1. Transform current gray image into binary B&W (thresholding)
2. Remove background (“background subtraction”)
3. Search for “blobs”
4. *[Smoothened blobs (standard succession of dilation, filling and erosion)]*
5. Filter out blobs that are too small (noise)
6. Identify the closed blob to the previous position of the larva (“proximity rule”)

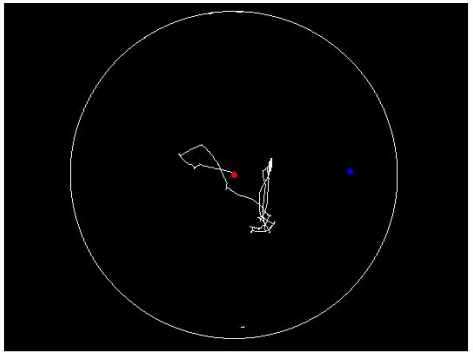
without odor



with odor



without odor



with odor