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GCaMP6f imaging using a mini-epifluorescence microscope (Mendonça et al 2024)

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ABSTRACT

GCaMP6f imaging using a mini-epifluorescence microscope methods from Mendonça et al 2024.

GUIDELINES

This procedure excludes surgical procedures that would occur prior to the imaging day. Please see 'virus injections and lens placement procedure' for those details.

Fluorescence images were acquired at 10 Hz and the LED power was set 40-60% with a gain of 4

BEFORE START INSTRUCTIONS

Mice are briefly anesthetized using a mixture of isoflurane and oxygen (1% isoflurane at 1L/min) and the mini-epifluorescence microscope was attached to the baseplate.

Protocol status: Working
We use this protocol and it's working

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GCaMP6f imaging

1 Once the baseplate (that is attached to the mouse) is attached to the mini-epifluorescence microscope, mice are recovered in their home cage for 15-20 minutes prior to starting imaging.

1.1 Image acquisition parameters were always set to the same parameters between sessions to be able to compare the activity recorded.

2 With the baseplate attached to the microscope, mice are them imaged during the FR4/1s task in 3 performance days. (see Single-limb fast FR4 operant task methods for details)