

MOM_Load_11_3*	Matlab code to identify pixels whose intensity is correlated with the stimulus regressor and to manually select ROIs (tectal and pretectal neurons).
MRF_original_sample	Two original (after format transformation and image registration in the horizontal plane; compatible to the Matlab code 'MOM_Load_11_3') time series recordings of calcium signals evoked by visual stimulus and corresponding original eyetracker files (after transformation; compatible to the Matlab code 'MOM_Load_11_3').
Midbrain_Localizer_upload	Matlab code for the registration of the functionally characterized neurons to the 3D brain volume; CellViewer which shows the neurons according to users' setting is also included.
Sample_data_midbrain_localizer	Sample datasets for the users to test the Matlab code 'Midbrain_Localizer_upload'
MRF_1_mat	The monocular receptive field mapping data from 10 fish (corresponding to 5 composite brains) in .mat format and a summary file of the monocular RF mapping data with the RF size and RF centres.
OMR_mat	head-fixed OMR behaviour from 6 larval zebrafish (three trials per fish)
OMR_Code	Matlab code to extract the tail motion of the larval zebrafish with head-fixed OMR behaviour
OMR_original_sample	55 original videos of head-fixed OMR behaviour evoked with different visual stimulus from one fish
annotation_of_the_MRF_and_OMR_data	Detailed annotations for the monocular receptive field mapping datasets and the head-fixed OMR behaviour datasets
instuction_for_the_Matlab_code_new	Instructions on the uploaded Matlab code
list_of_uploaded_data_and_code	This file itself

* In MOM_Load_11_3, regression-based correlation analysis to detect the pixels, whose activity profiles are similar to the regressors, is modified from (Miri et al., 2011).

Miri, A., Daie, K., Burdine, R.D., Aksay, E., and Tank, D.W. (2011). Regression-Based Identification of Behavior-Encoding Neurons During Large-Scale Optical Imaging of Neural Activity at Cellular Resolution. *J. Neurophysiol.* 105, 964–980.