Data used in the publication: Harpaz et al, (2021) Precise visuomotor transformations underlying collective behavior in larval zebrafish

Free swimming experiments:

Data is saved by fish age and light conditions. Each .mat file contains a struct array of length N groups with fields 'x','y' – fish coordinates: N fish x T timepoints

'body angle' – heading angle in degrees (0 is north), N fish x T time points

'T' – time in experiment 1 x T

Virtual reality experiment:

Data is separated into subfolders according to age (7, 14 and 21 dpf). Each experiment is represented by 3 files:

Data.mat – contains 3 variables – x,y, and body orientation (in degrees). Each variable is a 4d array, with dimensions: timepoints x stimuli presented x trials x fish.

The stimuli presented are specified in an Exp_info.xlsx file, where stimuli 1…N are given in the rows of the table.

info.mat file gives additional information per experiment: age of the fish, stimulus_start and stimulus_end times [in s] during a trial, trial_length [in s] and trial_time - a vector of sampling times [in s] in each trial

List of included experiments per age group:

<u>7dpf</u>

Dataset #	Experiment description	Example figures in paper
1	Stationary dots monocular and binocular	S4f
2	Moving dots (4 sizes), monocular and binocular	2c, 2f, S3f, S4c
3	3 dots horizontal	S4b
4	3 dots vertical	S4b
5	3 vertical sizes, horizontal constant	2d
6	3 horizontal sizes, vertical constant	2d
7	2 vertical ellipses presented to the same eye	2e, S4g
8	3 horizontal sizes, presented to a fish in a bowl	S4a
9	3 vertical sizes, presented to a fish in a bowl	S4a
10	2 vertical ellipses presented to the same eye, with no space between the stimuli	S4d

14 dpf

1	7 sizes, monocular	3a
2	4 sizes, monocular and binocular	3e
3	2 vertical ellipses presented to the same eye	3d
4	3 horizontal sizes and 3 vertical sizes	S5c

21 dpf

1	6 sizes, monocular	3b. S5a-b
2	4 horizontal and 4 vertical sizes	3c
3	2 vertical ellipses presented to the same eye	3d, 3e