

Goldfish can drive fish tank on wheels, Israel study finds

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Researchers at Ben-Gurion University of the Negev in southern Israel found that a goldfish's innate navigational abilities allowed it to steer a vehicle towards a target if given a food reward.

Goldfish may have short memories but, according to an Israeli university



study, they might be able to drive.

Researchers at Ben-Gurion University of the Negev <u>found that</u> a goldfish's innate navigational abilities allowed it to steer a <u>robotic vehicle</u> towards a terrestrial target if given a <u>food reward</u>.

To conduct their unusual experiment, the team placed a <u>fish</u> tank on a set of motorized wheels.

A camera system then recorded the fish's movements in the water and translated it into navigational directions—effectively moving the contraption in the direction where the fish bumped up against the glass.

In a video released by the university, the fish can be seen "driving" the vehicle toward a visual target, a colorful mark on the wall of the experiment room, visible through the clear sides of the tank.

When the fish steered the vehicle to the mark, it received a food reward.

"After a few days of training, the fish navigated to the target," the university team said.

"Moreover, they were able to do so even if they were interrupted in the middle by hitting a wall and they were not fooled by false targets placed by the researchers."

The peer-reviewed research, published in the *Behavioural Brain Research* journal, "hints that navigational ability is universal rather than specific to the environment," said Shachar Givon, a PhD student at the university's Life Sciences department who worked on the experiment.

More information: Shachar Givon et al, From fish out of water to new insights on navigation mechanisms in animals, *Behavioural Brain*



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