How does the fish escape?

- using visual sense? or using lateral line sense?



When you drop a glass marble from upper right, how does the fish escape?

[Hypothesis 1]:

The fish sees the glass marble and escapes before it falls into water (using visual sense).

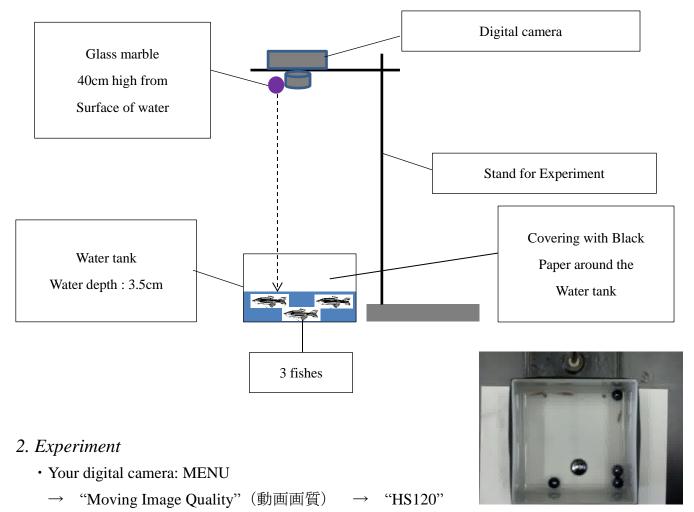
[Hypothesis 2]:

The fish feels the movement of water when the glass marble falls into the water, and escapes (using lateral line sense).

Group	А	OI	Ъ
TEAM ()

Members (

1. Experimental apparatus



"HS120" means that you photograph the moving image with the speed of 120 frames per a second, that is 1/120 [sec] $\doteq 8.3$ [mm sec].

- Recording on \rightarrow Drop a glass marble \rightarrow Recording off
- Repeat this 5 times

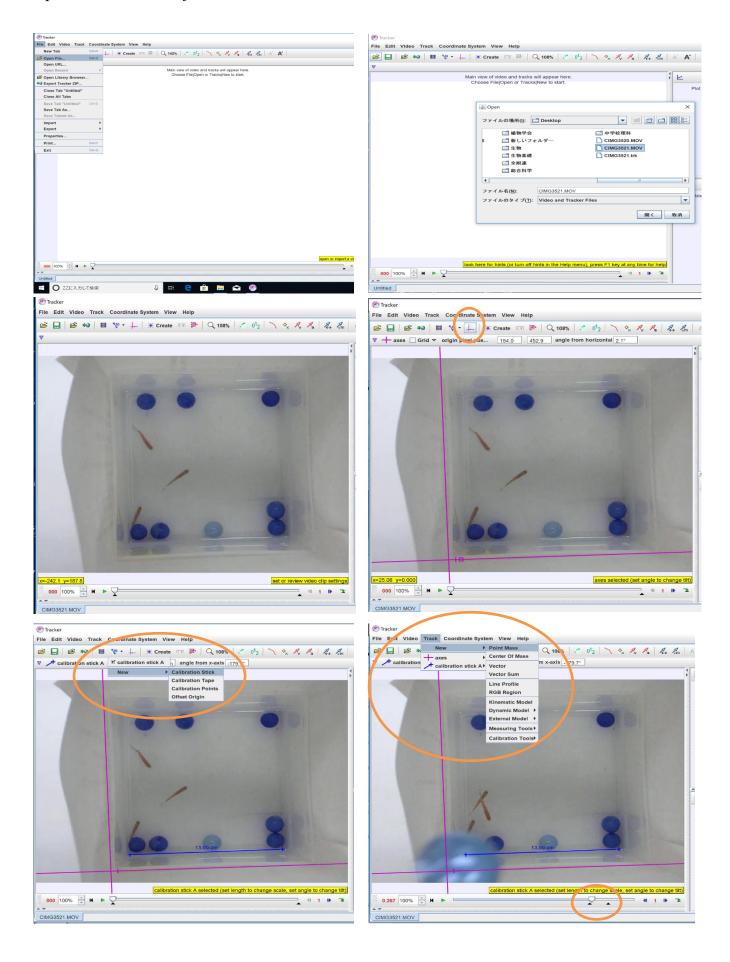
3. Analysis of the result

- Analyze your recorded moving image with "Tracker Video analysis and Modeling Tool "
 https://physlets.org/tracker/
- Measure the "swimming speed" of the fish before and after that a glass marble fell to the surface of water.

4. Discussion and Conclusion

- Discuss whether fish use visual sense or using lateral line sense when danger approaches.
- Talk about your conclusion with scientific evidences in each group.

Operation Method of "Tracker"



iscussion and Conclusion (your record)							