



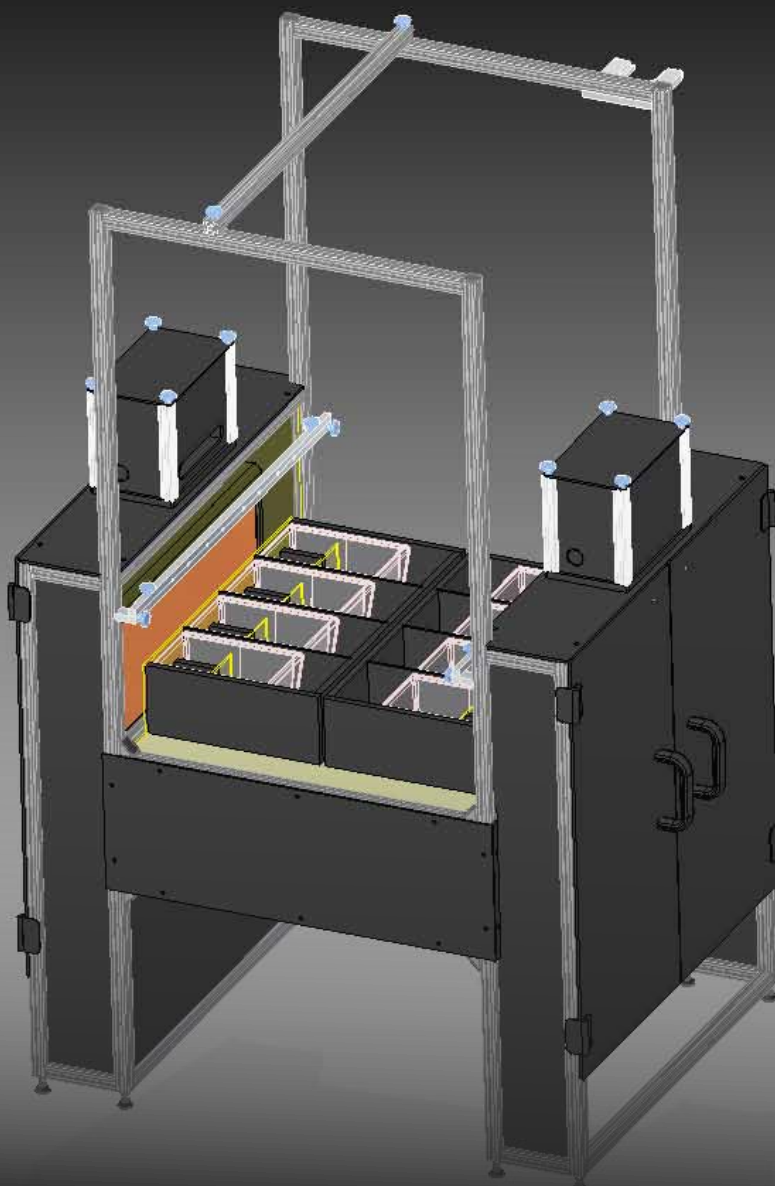
Sophisticated Life Science Research Instrumentation



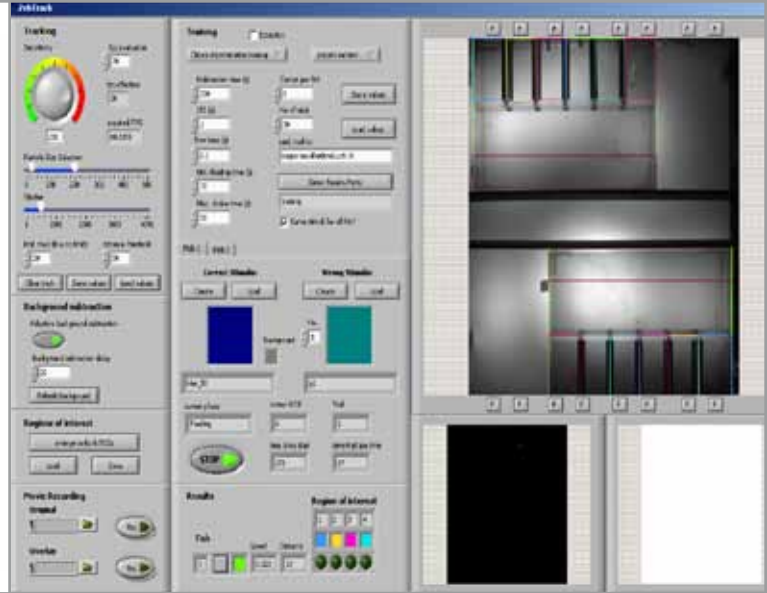
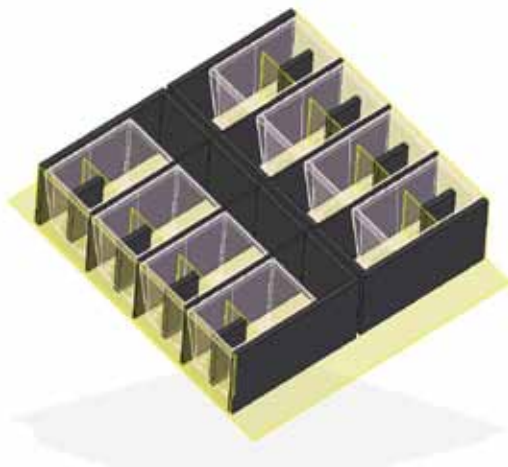
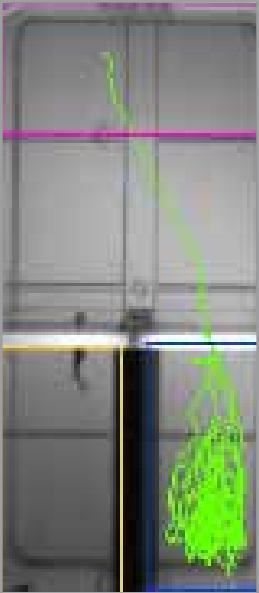
VisioTrainer

Automated Measurement of Fish Behavior

NEW !



TSE Systems: The Wise Choice



Stimulating Choices

YOUR BENEFITS

- **Efficient: minimal fish training necessary**
- **Home tank measurement: stress-free**
- **Standardized procedures**
- **Trustworthy: data comparability**
- **Walk-away system: no experimenter interference**
- **High-throughput: 8 fish measured at one time**
- **TSE (2) Years All-IN Premium Warranty and Service Package**

Literature Example

Mueller et al., FENS Abstr. (2010)

The poster describes the experimental design and data generation of a VisioTrainer prototype.

High-Throughput Behavioral Screening of Adult Fish

The VisioTrainer is one element of a growing toolbox of TSE Systems instruments for behavioral analysis of fish. The VisioTrainer enables automated measurement and analysis of visual choice discrimination of up to 8 adult fish simultaneously.

Arbitrary visual stimuli projected on to screens induce choice behavior in test fish. Correct choices, i.e. presence in the correct target compartment, are rewarded with food. The whole system is supervised by a video camera and swimming pathways are tracked automatically. Data generation includes:

- Positional coordinates
- Swimming speed
- Distance covered
- Number / percentage of correct choice

The software features extensive control of visual stimuli, such as color composition, brightness, pattern or duration.

Applications

- Multiple behavioral paradigms such as avoidance or preference
- Function of the visual system
- Fish brain function
- Memory studies
- Pharmacology
- Toxicology
- Studies of neural circuitry
- Sensorimotor integration
- Physiological-functional correlations
- Developmental genetics

www.TSE-Systems.com

info@TSE-Systems.com