

Sensory Facilities

Sensory facilities

- Principles
- Location
- General requirements for sensory testing facilities
- Sensory laboratory design
- Sensory softwares
- Special facilities

To conduct a sensory test...

Resource structure

- Adequate test facilities
- Professional staff
- Pool of qualified subjects
- Ability to use all test methods

Principles

- **Many variables must be controlled** - to measure the true product differences under investigation.
- **Neutral environment**

For example...

1. The use of booths
2. The lighting
3. The room air conditioning and pressure
4. The preparation area
5. The entry and exit areas

Location

- The sensory laboratory should be **centrally located** (close to potential judges)
- But, the sensory laboratory **should be away from congested areas** because of noise and the opportunity for socializing, or from sources of odor, such as production lines and cafeterias.

Location

- A good location is one which most panel members pass on their way to lunch or break, or near the building entrance if panel members are drawn from the outside.

General requirements for sensory testing facilities

- Reception and orientation area
(Entrance and exit areas)
- Individual testing booths/stations
- Panel discussion area (round table)
- Product preparation (with cooking capabilities), holding, and storage
- Data processing, records
- Experimenter desk/office

■ **Let's get an idea...**

<http://www.tragon.com/where/redwood-shores-lower.php>

(Example from Tragon's SF Sensory facility)

<http://www.thenfl.com/product-design-services/sensory-evaluation/floor-plan>

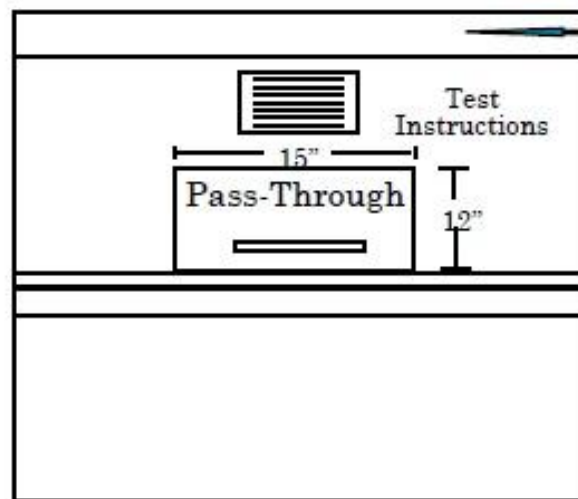
(Example from National Food Lab's sensory facility)

Sensory Laboratory Design (sensory booths)

- Place 6 to 8 booths side by side to be served by one sample preparation area.
- Typical booths are 27 to 32 inches wide, with a counter top 18 to 22 inches deep.
- Options:
 - Small stainless steel sink and water faucet for rinsing
 - Space for computer screen, keyboard or laptop
 - Multiple light sources

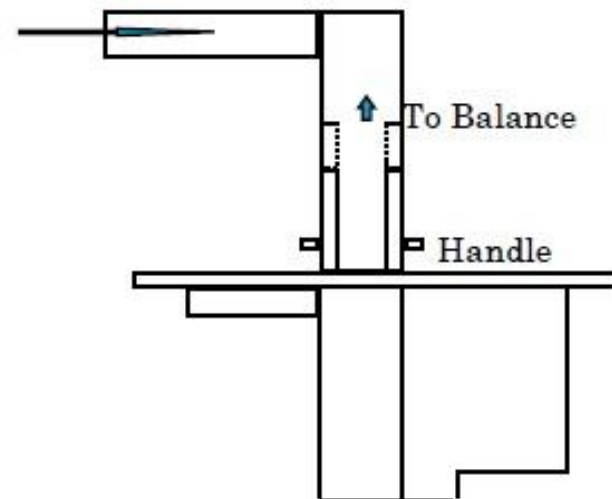
Sensory Laboratory Design (sensory booths)

- Three types of hatches may be used for passing samples – sliding door, breadbox or carousel.
- Include a signal system for communication with the preparation areas

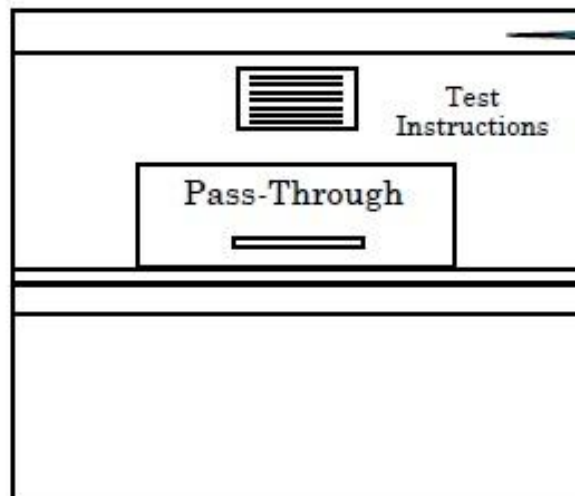


Subject View

Soffit

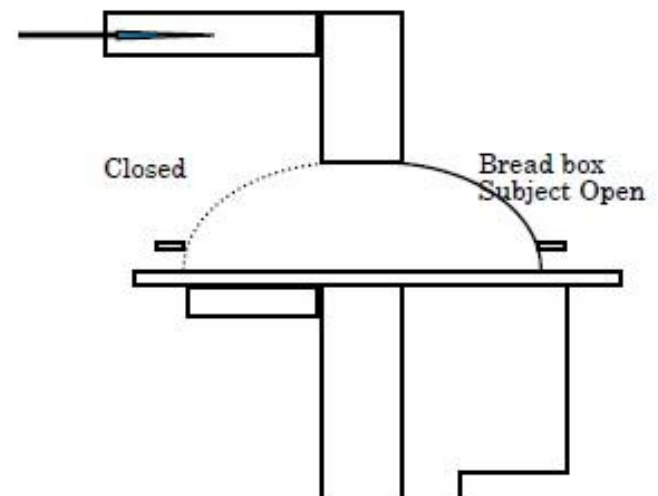


Side View



Subject View

Soffit



Side View

Requirements for booth area

- Lighting
- Ventilation/Temperature/humidity
- Product delivery/pass through
- Booth dividers
- Signal system
- Adjustable chairs
- Electrical outlets
- Direct data entry systems

Examples of sensory booths



The national food lab



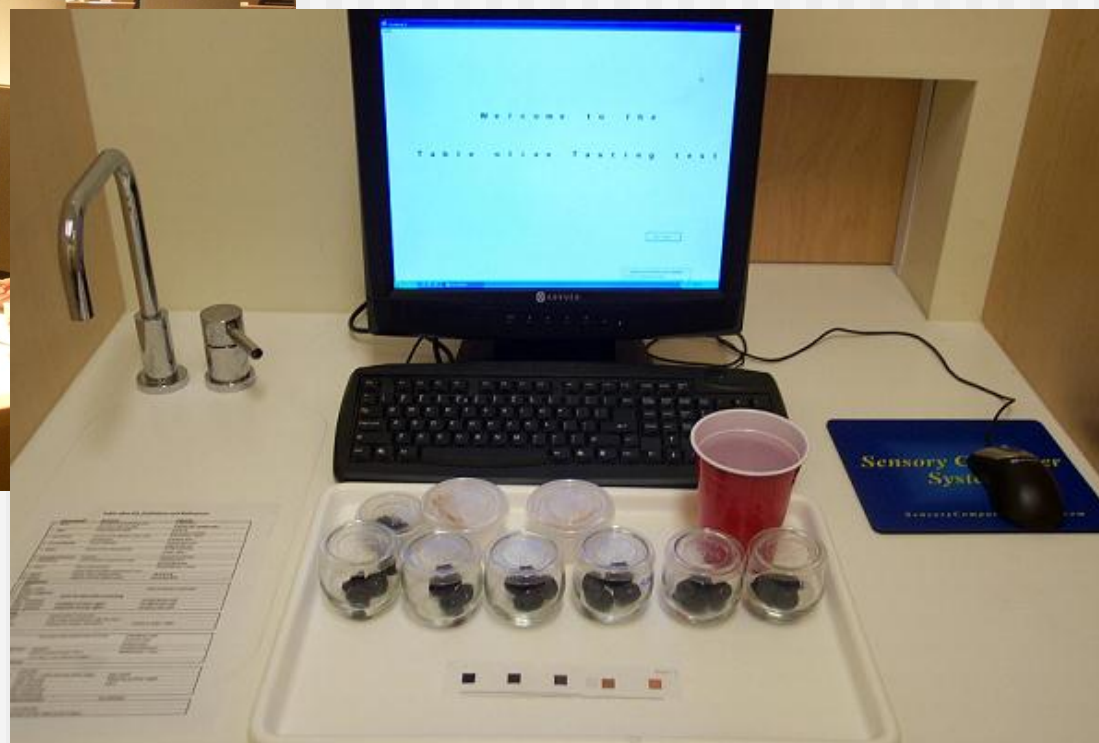
Examples of sensory booths



Tragon



UCD Sensory theater



UCD Guinard sensory lab

The National Food Labs



Michigan State University



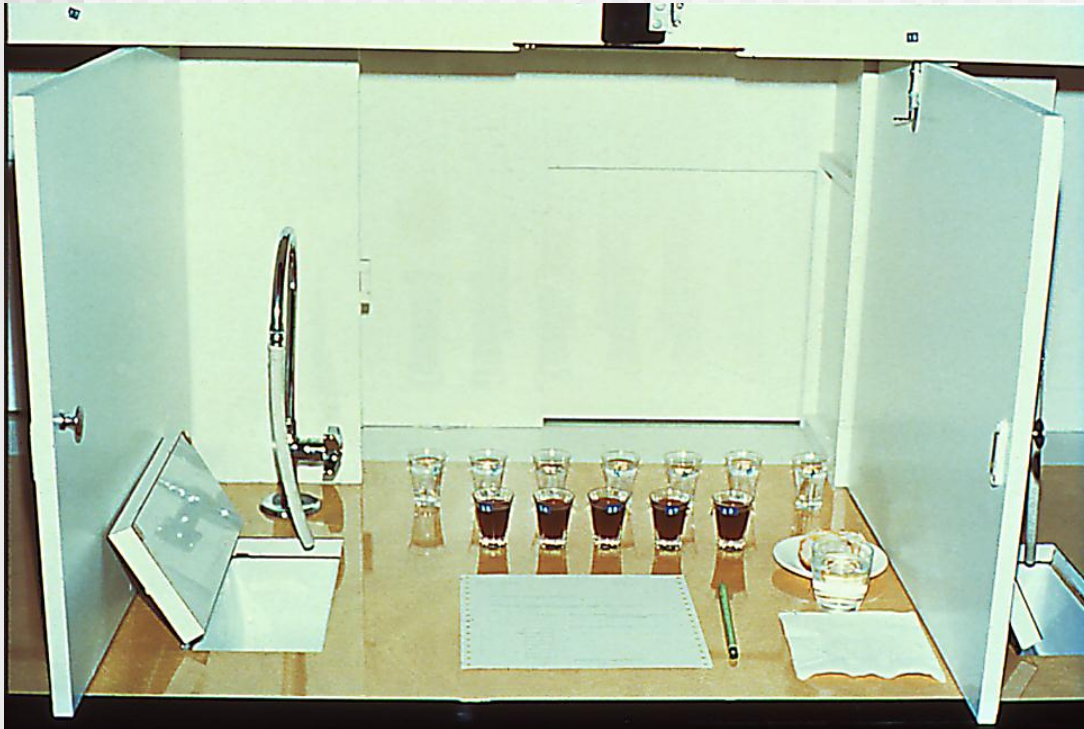
Purdue University



University of Minnesota



Sensory Booths



Sensory Booths



Sensory Booths



Discussion area



UCD Guinard sensory lab



Tragon

Requirements for product preparation, holding, and storage area

- Ventilation
- Temperature controlled storage
- Preparation equipment
- Adequate storage space
- Complete equipment
- Counter space
- Cleaning

Prep area



National Food Lab



Tragon

Computer benefits

- Clean data files
- Direct data entry
- High-tech progressive image
- Long term cost benefits
- Saves papers & convenient data storage

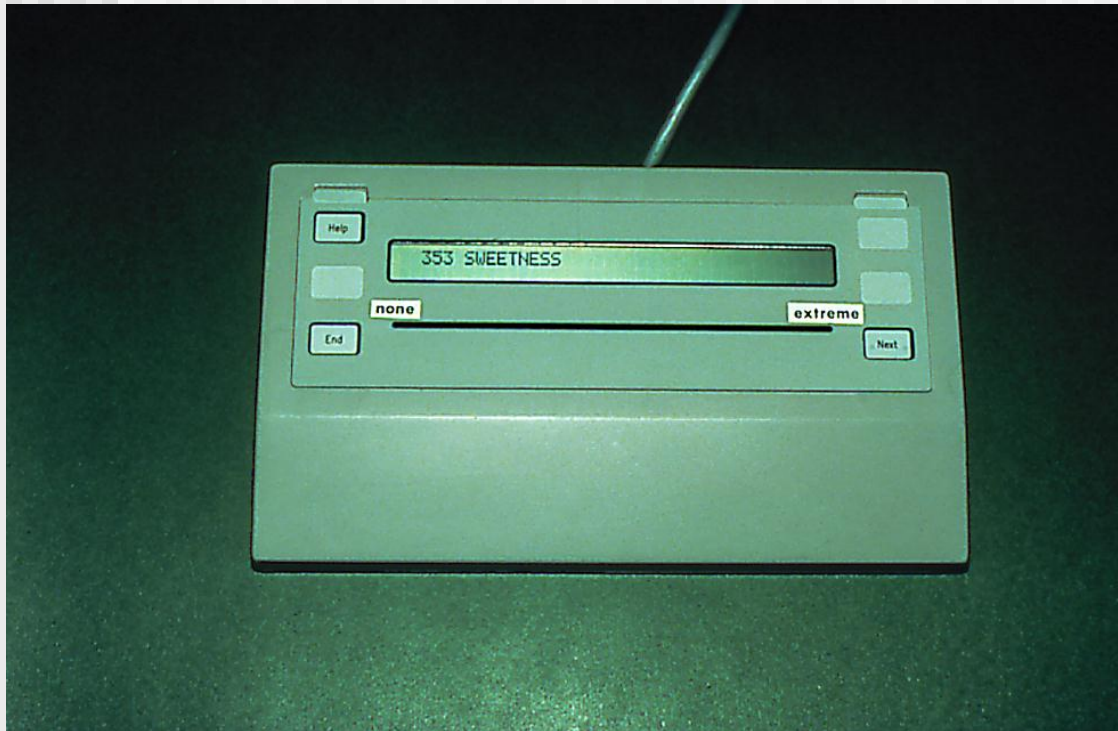
Computer challenges

- Flexibility during testing
- Rapid modifications
- Resolution
- Maintenance
- Costs/upgrades
- Infrequent users

Sensory Softwares

- Sensory data collection and analysis
- License fee + hardware
- Various products available:
 - Compusense
 - Biosystemes (FIZZ)
 - SIMMS
 - OPP (SensTools)

Data collection (in the 90s)



Data collection (FIZZ software)

Fizz - [Fizzterm 0]

Action File Elements Sessions Options Windows Help

? [Icons]

1. Overall, how much do you like or dislike this cereal/granola bar?

Liking

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dislike Extremely	Dislike Very Much	Dislike Moderately	Dislike Slightly	Neither like nor dislike	Like Slightly	Like Moderately	Like Very Much	Like Extremely

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start Fizz YouTube - [Icons] (C... 03 External prefere... for SM's assistants Protocol 02) Extern... 5:28 AM

Special Facilities

- Focus group facility (with observation booths, recording capabilities, video-streaming/chat capabilities, one-way mirror)
- Teaching facilities
- Facilities for sensory testing with children

Focus group area

brainfarm[®], a Tragon Company



Unilever's Children Testing Facility



Sensory Teaching Facility

