IMOTIONS®

iMotions Lab

The World's Leading Biosensor Platform

iMotions Lab

Seamless and efficient multisensor research

iMotions Lab is the stimuli presentation and data collection platform which allows researchers to intuitively design studies, present any type of stimuli, carry out surveys, record from a webcam, create graphic visualizations and collect, mark, annotate and export data.

- Single platform for cutting-edge, multimodal research
- Complete solution for experimental design, stimuli presentation, and data collection
- Hardware agnostic - the ability to Integrate with 50+ sensors from 20+ partners

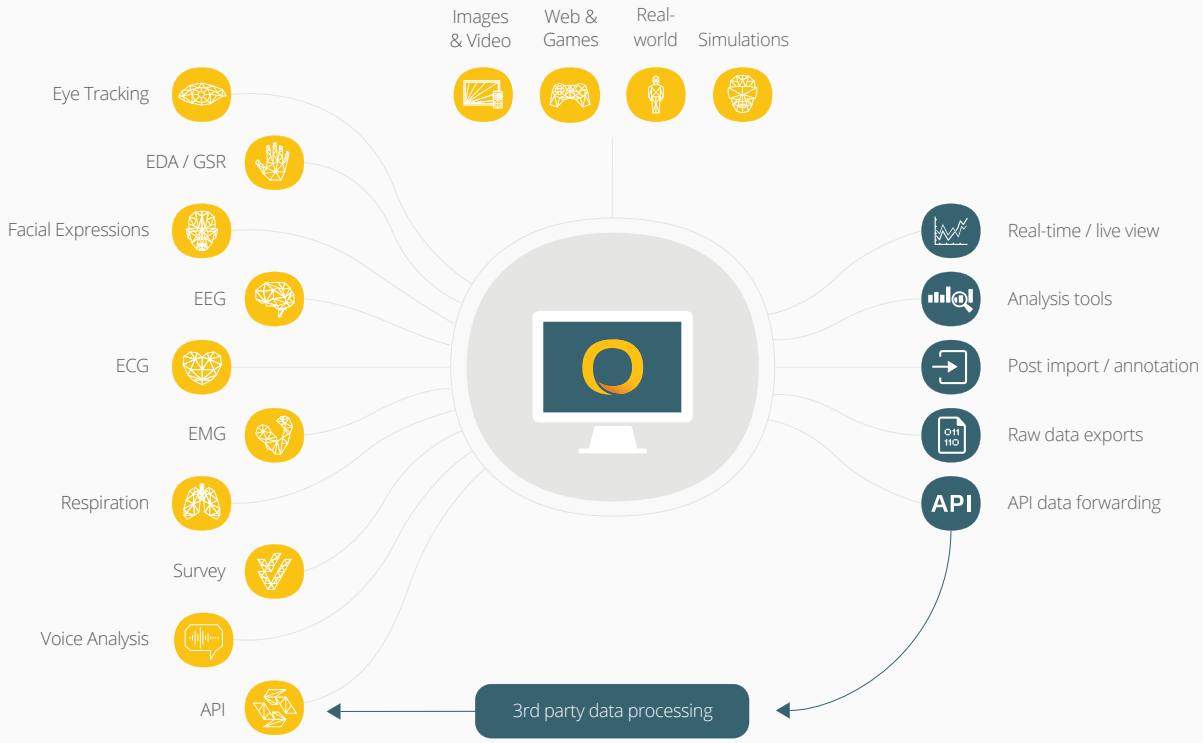
Some of the universities and companies that are currently using iMotions.

Watch the video below to see how Dr. Danielle Shore from Oxford University uses iMotions in her research.

iMotions Software Solution

Multimodal research in any environment

iMotions reduces the complexity of carrying out multimodal research, enabling a wide array of sensors to be seamlessly connected. By combining these different physiological measurements, it's possible to get a better understanding of human behavior in any environment.



iMotions enables multimodal research to be carried out in an array of research scenarios.

Lab-based studies

Natural environments

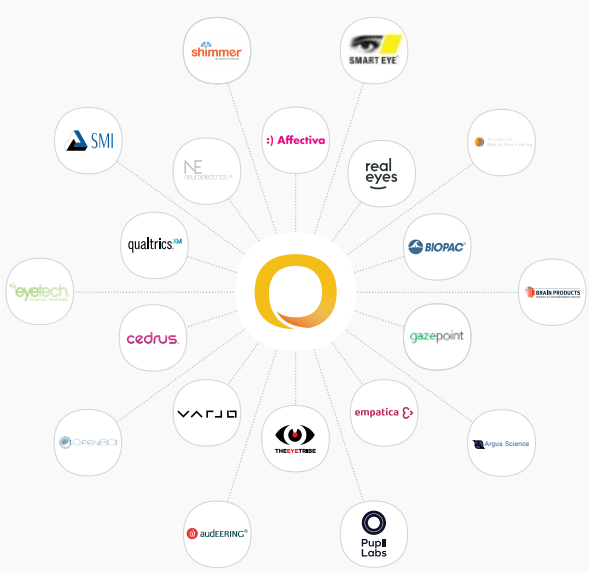
VR environments

iMotions Lab Features

The complete human behavior research platform

Complete stimuli presentation

iMotions Lab allows you to present a full range of stimuli, including images, videos, websites, games, mobile phone / tablet apps, software, and VR environments.

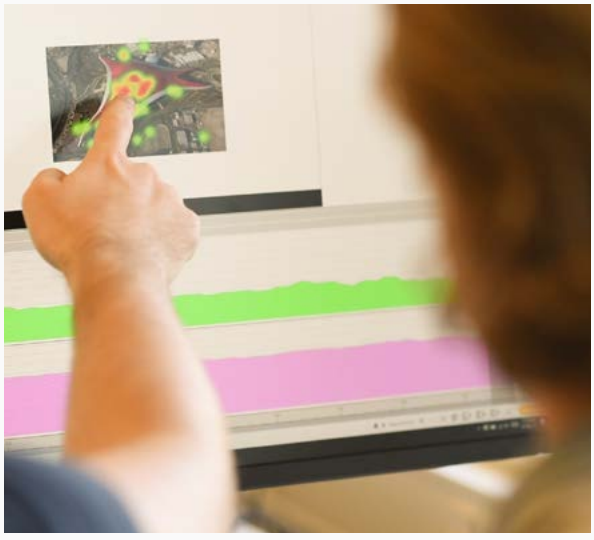


Seamlessly integrated with other biosensors

Effortlessly integrate and synchronize 50+ different sensors from 20+ independent vendors, across 10+ modalities. Add even more sensors through the Lab Streaming Layer. Forward data in real time and import external sensor / software data and loop it back into the platform via the API.

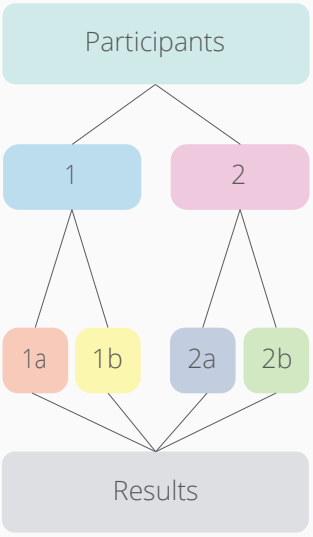
Streamlined data analysis

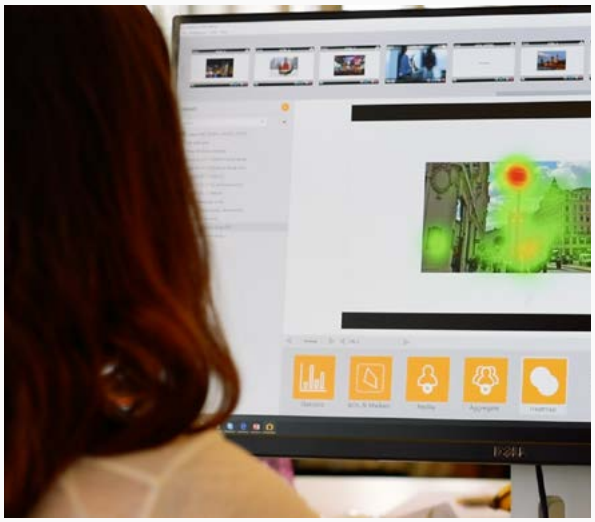
Variety of automated features and easy-to-use tools. Moment-to-moment visualization of raw and aggregated data. Get summary scores across multiple modalities, and analyze the data on an individual or group level. Visualize findings at every step of the way.



Study design control & flexibility

Design studies with complete freedom - assign the full experimental process within iMotions. Our intuitive study builder provides a point-and-click interface for creating even the most advanced study designs. Easily set up participant groups, study flows, and block designs. Control a full range of presentation options, such as randomization and duration, with batch editing across stimuli blocks and entire experiments..



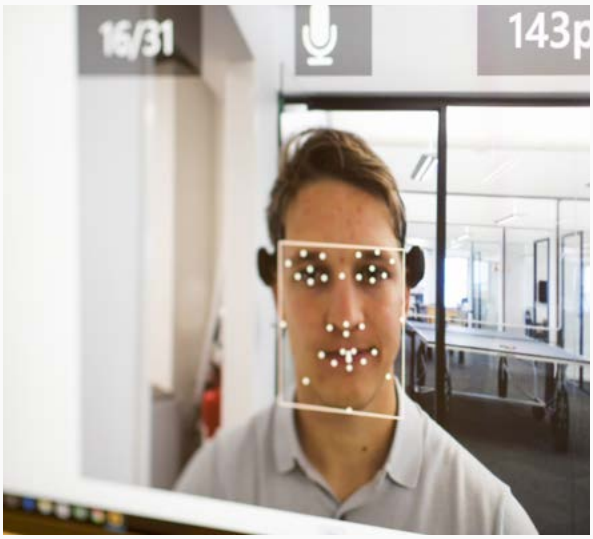


Real time view & replay of recordings

Visualize real-time recordings (both raw data and metrics) during data collection, or replay the sessions as desired. Export aggregated sensor data directly from replay, completely or in part.

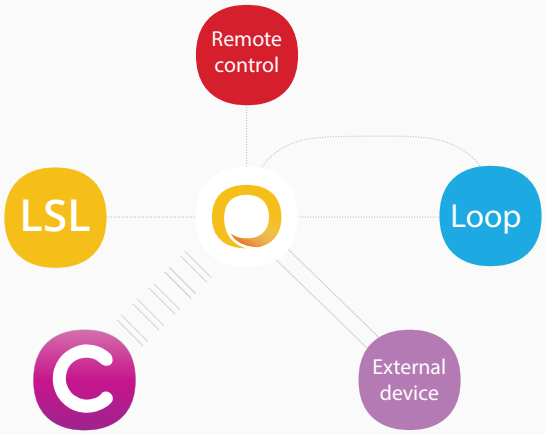
Respondent and scene recording

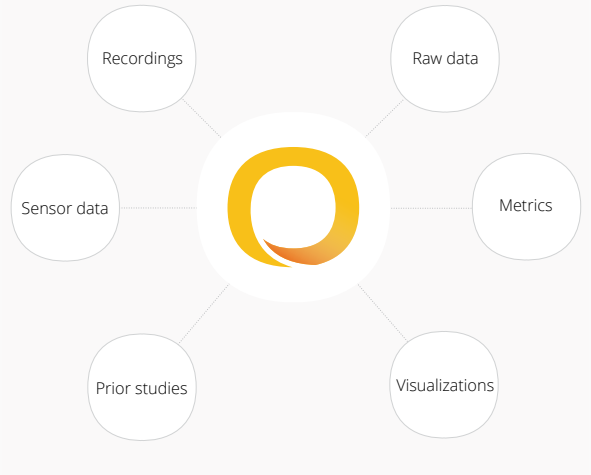
Record the face and sound of the respondent or environment in sync with the stimuli and sensors integrated. Use scene recordings to further assess participant behavior, such as gestures. Record from up to 3 different cameras. Annotate the data live, or after data collection to identify important session events, and to demarcate points to analyze further.



Input and output anything

Use the API to integrate additional biosensors or any data generating device, and forward that data into iMotions. It's also possible to forward data out of iMotions to other devices, and use the biosensor data to trigger events. Almost any device or data can be synchronized with other biosensors and viewed live in iMotions using the API, or Lab Streaming Layer.



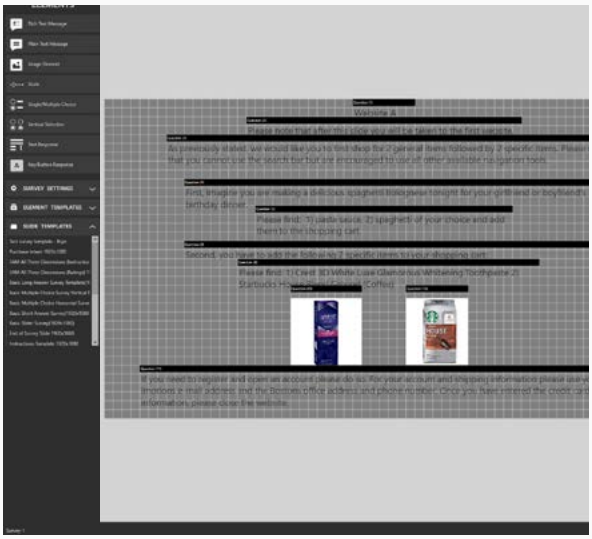


Flexible data import / export options

Export raw data, results, and metrics in file formats suited to Excel, SPSS, MatLab etc. Export visualizations on top of images, videos, websites, etc. Import prior data or recordings for analysis and synchronization on the iMotions platform. Keep full control of your data.

Complete survey design and editing

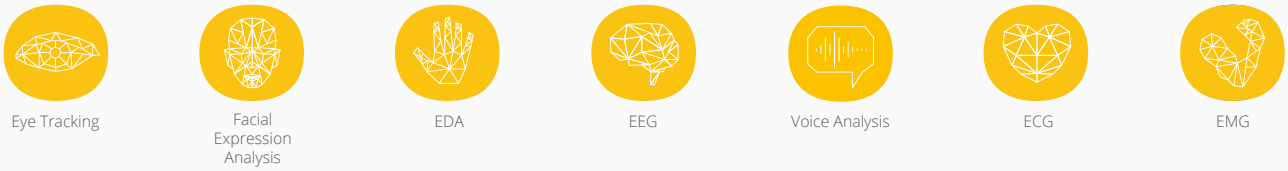
Advanced survey creation for triangulation of responses is effortless in iMotions Core. Present single questions, multiple choice, Likert scales, images and other elements. Use the Qualtrics integration to carry out advanced surveys with skip logic questions and more.



Seamless Synchronization

The heart of multimodal research

iMotions enables multiple biosensors to be seamlessly synchronized into a single platform, ensuring that multimodal research can be carried out as simply as possible.



iMotions supports leading 3rd party sensor products. Additional sensors can also be integrated via our API.

Integrated biosensors

iMotions has a suite of partners who produce biosensor hardware, such as eye tracking, facial expression analysis, EEG, EDA, ECG, EMG, etc that are suitable for a range of human behavior research.

- **Eye tracking:** Smart Eye, Gazepoint, SMI, Pupil Labs, The Eye Tribe, SR Research EyeLink, ASL, Eyetech, Varjo
- **Facial expression analysis:** Affectiva
- **EEG:** Advanced Brain Monitoring (ABM), NeuroElectrics, Brain Products, Emotiv, OpenBCI
- **EDA/GSR:** Shimmer, BIOPAC, Empatica
- **ECG:** Shimmer, BIOPAC
- **EMG:** Shimmer, BIOPAC
- **Respiration:** BIOPAC

Additional sensor integration

iMotions has a powerful API equipping researchers with the tools to:

- Integrate new sensors with real-time data capture in iMotions
- Live synchronize all data streams
- Live forward all synchronized data streams
- Control iMotion application programmatically with remote control
- Supports standard sensor protocols like LSL and TTL to add even more sensors and hardware

Selected Publications

Research made possible with iMotions

JAKE® Multimodal Data Capture System: Insights from an Observational Study of Autism Spectrum Disorder

Authors: Ness, S. L., Manyakov, N. V., Bangerter, A. et al.
Institutes: Janssen Research and Development, Duke University School of Medicine, Northeastern University, University of California, University of Washington

View publication

Emergency, Automation Off: Unstructured Transition Timing for Distracted Drivers of Automated Vehicles

Authors: Mok, B., Johns, M., Lee, K. J., Miller, D., Sirkin, D., Ive, P., Ju, W.

University: Stanford University

View publication

Adding immersive virtual reality to a science lab simulation causes more presence but less learning

Authors: Makransky, G., Terkildsen, T. S., Mayer, R. E.

University: University of Copenhagen, University of California Santa Barbara

View publication

Self-control: Knowledge or perishable resource?

Authors: Palma, M. A., Segovia, M. S., Kassas, B., Ribera, L. A., Hall, C. R.

University: Texas A&M University

View publication

Toward Affect-Sensitive Virtual Human Tutors: The Influence of Facial Expressions on Learning and Emotion

Authors: Mudrick, N. V., Taub, M., Azevedo, R., Rowe, J., Lester, J.

University: North Carolina State University

View publication

Mitigating passive fatigue during monotonous drives with thermal stimuli: Insights into the effect of different stimulation durations

Authors: Schmidt, E., Bullinger, A. C.

Company / University: BMW, Technical University Chemnitz

View publication

Deep Multimodal Fusion for Persuasiveness Prediction

Authors: Nojavanasghari, B., Gopinath, D., Koushik, J., Baltrušaitis, T., Morency, L-P.

Universities: University of Central Florida, Carnegie Mellon University

View publication

Learning Pain from Action Unit Combinations: A Weakly Supervised Approach via Multiple Instance Learning

Authors: Chen, Z., Ansari, R., Wilkie, D. J.

Universities: University of Illinois at Chicago, University of Florida

View publication

Want to know more?

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