



D-LAB

HEAD TRACKING



// Humans head position is a key indicator for a holistic understanding of their behavior in specific environments. With the new Ergoneers Head Tracking module it is easy to upgrade your existing Dikablis Professional Eye Tracker with our new Head Tracking functionality. Seamlessly integrated in D-Lab, head movement data such as distance to an object, angles and position in our coordinate system are now available as additional metrics.

MEASURE HEAD POSITION IN THE WORLD COORDINATE SYSTEM

To understand behavior it is essential to analyze more than just one facet of human interaction. For many researchers and scientists it is therefore important to understand the relation between gaze behavior and head position. That's why Ergoneers developed a comprehensive algorithm for Head Tracking that is fully integrated in D-Lab data acquisition and analysis software. It allows online calculation and analysis of angles and position of the head in our coordinate system based on Ergoneers' marker technology. Everything is already preset in D-Lab to use our Dikablis Professional Eye Tracker to calculate the head position and angles. All values are available in D-Lab and can be used to enrich studies or to build metrics on. Together with the D-Lab Scripting language dependencies to other channels or sensors such as physiological stress level or eye tracking can be analyzed automatically.

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TECH SPECS

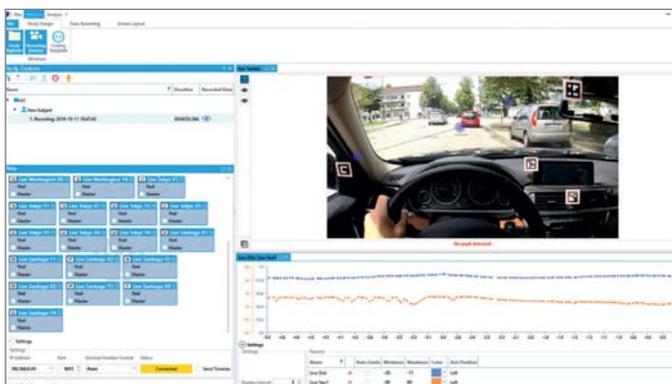
Head position	x, y, z (cm)
Accuracy on distance	± 2 cm
Angles of head position	α, β, γ (degree)
Accuracy of angles	± 2°
Marker size	5 x 5 cm (at a distance of 150 cm)
Necessary hardware	Dikablis Eye Tracking Glasses Professional Cable
Necessary D-Lab Modules	D-Lab Eye Tracking Head Mounted, D-Lab Head Tracking
Necessary third party software	None

SCOPE OF DELIVERY

Dikablis Professional Eye Tracking Glasses (if not in possession of customer already)
D-Lab Head Tracking module
D-Lab Eye Tracking Head Mounted module (if not possession of customer already)

APPLICATION EXAMPLES

- Track head movement in eye tracking studies
- Evaluate eye-body coordination
- Understand which stimuli causes head to move
- Ergonomic studies
- Robotic science
- Production ergonomics
- Sport science



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