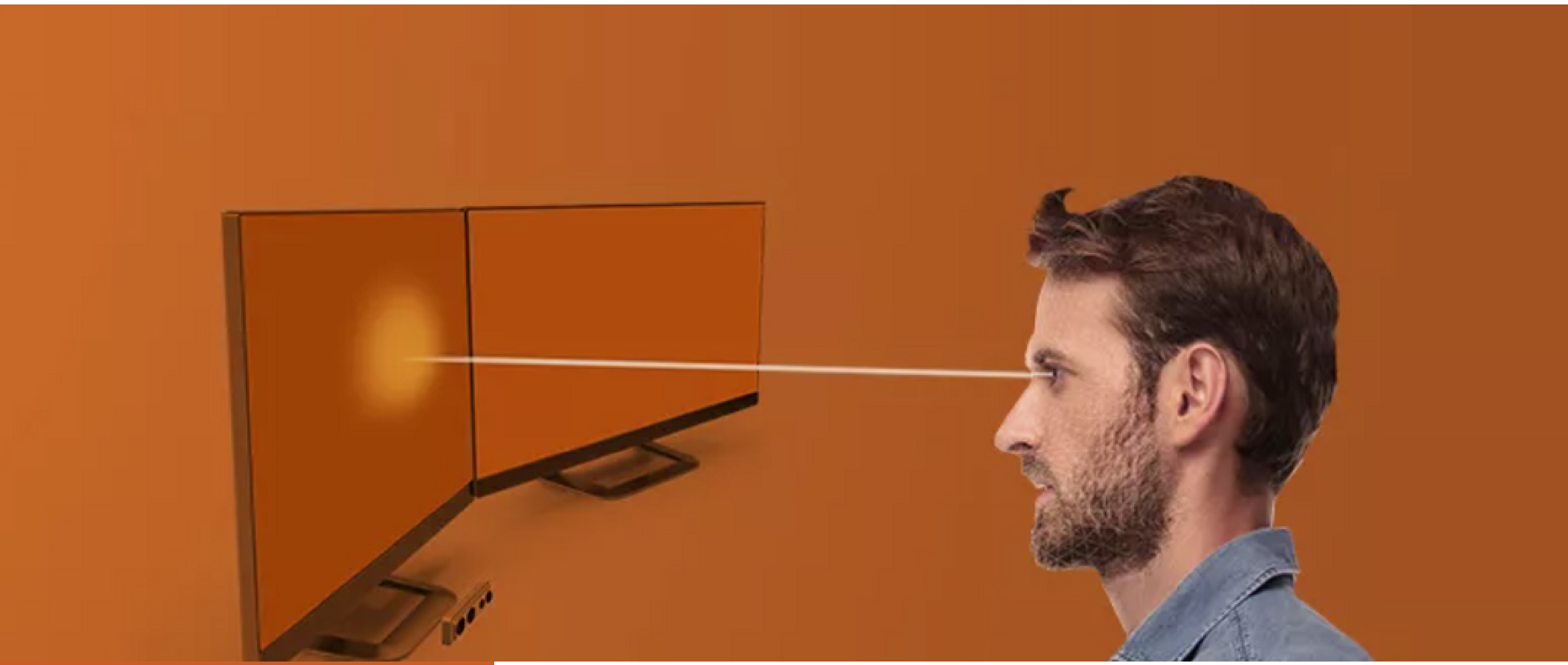
GAZESENSE SDK

LEADING EYE TRACKING SDK
FOR WEBCAMS AND 3D SENSORS



#1
EYE TRACKING SDK

ROBUST

High accuracy and longitudinal calibration robustness.

OFF-THE-SHELF

No need to buy expensive eye tracking hardware. Use regular webcams or 3D sensors.

PLUG & PLAY

Select the camera type in the the visualization app and start tracking and streaming data immediately.

GazeSense SDK allows easy integration of head and eye tracking into consumer devices: mobile phones, tablets, laptops, monitors, and webcams.
Develop your custom eye-tracking applications for any platform using C++ and Python API code samples.

Camera Requirement
- RGB or IR sensor with resolution >320p
- Optional: RGBD for increased calibration robustness

Head pose (relative to the sensor)
- Pitch: -20° to 75°, Yaw： -15° to 15°, Roll： 15° to 15°

Calibration Options
- Automatic or 1/5/9 screen point calibration

Processing Requirement
- CPU Load on PC: <3%. Option to offload to iGPU or dGPU.

Robustness
- Works with glasses, contact lenses, varied age ranges, and ethnicities

Eye Tracking Principle
- AI-powered head pose and eye gaze estimation for 2D or 3D sensors (patented)

Single Screen Tracking Box
- Operating distance: 30-80cm/16-31''
- Tracking frame: 40x30cm/16x12'' at 65cm/26''
- Max. recommended screen size: 30''

System Requirements for Visualization PC software
- Win 10/11 (x64)/Ubuntu Lin 18.04 (x64) or higher, 2GB RAM, 1 GB storage

Output

Accuracy*: >1.5°
Head Tracking: 6 degrees of freedom
Gaze: 3D origin and direction of left and right eyes
Screen Gaze: 2D point of regard on a screen (incl. multiple screens)
Blink Detection: left and right eye open or closed
Sampling Rate: 10 - 90 Hz**

*Ideal conditions. Gaze accuracy decreases towards the edges of a screen, especially for larger screens. Accuracy can go down to 5° for calibrated users and 10° for uncalibrated users.
** Sampling rate restricted by processing hardware and/or sensor sampling rate.

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