Comparing the World's Top Credibility Assessment Technologies









Comparison	Polygraph	EyeDetect	EyeDetect+	VerifEye
Year invented/ introduced	1921 (FBI began using polygraph in 1939.)	2014	2021	2023
Manufacturer(s)	Axciton Systems (U.S.) Lafayette Instrument (U.S.) Limestone Technologies Inc. (Canada) Stoelting Company (U.S.)	Converus, Inc. (Lehi, Utah, USA)	<u>Converus, Inc.</u> (Lehi, Utah, USA)	Converus, Inc. (Lehi, Utah, USA)
How it works	A standard polygraph instrument records changes in electrodermal, cardiovascular and respiratory activity to measure attention and emotional arousal.	A laptop equipped with specialized software and infrared camera records involuntary changes in eye movements and pupil diameter to measure cognitive effort	A laptop equipped with specialized software, infrared camera, and polygraph sensors, records polygraph channels and ocular-motor measures. Examiner may conduct pre- and post-test interviews.	An Android or iPhone with the VerifEye app records involuntary changes in eye movements and pupil diameter to measure cognitive effort.
Test duration	Tests take from 90 minutes to many hours, depending on the test type.	Tests take 15 to 30 minutes, depending on the test type.	Tests take 20 to 45 minutes, depending on the test type.	Tests take 10 minutes.
Time to get test results	Test results in about 5 minutes, but test reports can take several hours.	Test results and report in less than 5 minutes.	Test results and report in less than 5 minutes.	Test results and report in minutes.
Accuracy	Screening test: 85%¹ Diagnostic (investigative): 89%¹	Screening test: 86-88% ^{2,3} Diagnostic (investigative): 87% ⁴	Screening test: 88-91% ⁵ Diagnostic (investigative): 87-89% ⁴	Screening test: about 80% Diagnostic (investigative): about 80%
Equipment cost	A traditional polygraph instrument costs approximately \$5,000-8,000.	\$4,800 MSRP (U.S.)	\$6,995 MSRP (U.S.) (includes an EyeDetect Station v4, Physio Tracker v2 and activity seat pad)	\$0 (The VerifEye app is a free download from the Google play or App Store.)
Invasiveness of test	Examinee must be connected to cables and sensors — including 2 pneumatic tubes around chest — and a blood pressure cuff. (invasive)	No sensors attached to the examinee. (noninvasive)	Most sensors are attached to the hand or wrist of the examinee. No blood pressure cuff. (minimally invasive)	No sensors attached to the examinee. (noninvasive)
Objectivity	Examiners "interpret" changes in polygraph recordings. Manual scoring of polygraph recordings requires training and is a potential source of error that can reduce accuracy.	Automated testing process that maximizes reliability and objectivity.	Automated testing process that maximizes reliability and objectivity.	Automated testing process that maximizes reliability and objectivity.
Training	Examiners undergo 10 weeks of training, ongoing evaluation, and continuing education courses.	Standard training (administer tests and interpret results) takes about 6 hours; advanced training is 2 additional days.	Standard training takes less than 4 hours; advanced training is 3 additional days for trained polygraph examiners.	Examinee watches a tutorial and takes a self- administered test on a mobile phone. If the test is proctored, training takes less than 3 hours.
Big takeaway(s)	Has been the standard, de facto credibility assessment technology since 1921.	First innovation in the credibility assessment industry in nearly 100 years. Fast, accurate, affordable, noninvasive, scalable, unbiased.	The world's first automated polygraph that's impartial, accurate, less intrusive, and captures more information than a traditional polygraph.	The world's first mobile truth verification test. Never before has a truth-verification test been available to the masses, worldwide.

^{1.} Source: Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques, 2011 | 2. Source: Laboratory and Field Research on the Ocular-motor Deception Test – European Polygraph Journal, Vol. 10, 2017, No. 4 (38) 3. Source: Ocular-Motor Methods for Detecting Deception in a Multiple-Issue Screening Protocol – A. Potts Doctoral Dissertation, August 2020 | 4. Source: EyeDetect Hybrid Directed-lie Comparison Test (HDLC) Development and Validation Study, May 2021 | 5. EyeDetect Hybrid Multi-Issue Comparison Test (HMCT) Development and Validation, May 2021.