



**Revolutionizing
Behavior Research**



CRO Service

Features:

Our CRO Analytical Service provides customers access to a broad range of proprietary behavior recognition tools. We have the only industry system that uses a **four-point body tracking method (nose, fore body, center of mass, tail)** to accurately track body parts and related animal positions. Our services cover all types of mazes including Elevated Plus Maze, Zero Maze, Radial Arm Maze, Y- or T- Maze, etc. We can provide parameters such as **speed, distance, zone visits, orientation, latency, etc.** In addition, because of our innovative tracking mechanism, we provide more advanced parameters such as **grooming, circling, sniffing, rearing, stretch and attend, head dip, twitch, corner turn**, and a lot more. As evidenced by twelve patents, our HomeCage system is a powerful tool that captures circadian rhythm. We can provide more than fifty homecage behaviors such as **eat, drink, chew, sniff, dig, forage, rear up, circle, hang/climp, grooming, stretch, sleep, twitch, pause, awaken**, etc.

Our SocialScan tool automatically track each animal in a multiple animal environment. We can provide parameters such as **active/passive contact, approach, mount, leave, follow, sniffing at body/genital**, etc.

Anti-depression tests such as tail suspension test and forced swim test can be automatically analyzed by our software suite. We produce parameters such as **mobile/immobile, escape/struggle, swim, climb**, etc.

All of our results can be exported in text or Excel format for follow up analysis. Features such as heatmap and video frame captures are also available.

Clever Sys. CRO Analytical Services leverages our firm's two decades of experience collaborating with scientists around the world with complete systems used by hundreds of academic institutions and pharmaceutical companies. Our systems have been cited by more than fourteen hundred publications with 90% or higher accuracy.

How does it work

Our team of experts will perform the analysis work for you at a fraction of a full system cost. Clever Sys. solutions offer standard and advanced behavior testing analysis in areas such as motor function, learning and memory, neurodegenerative disease, social behavior, depression, epilepsy, pain, and gait analysis. Our team will conduct an initial assessment with your research team and provide input to confirm objectives and protocol design. After the experiments are completed and videos captured, we will leverage our powerful automated tools to conduct the video analysis for you. Our internal quality assurance process will validate the data and remediate any issues found. We can process hundreds of hours of video within a short time period. The data will be provided to you in a similar environment as illustrated below for client validation. Each behavior can be validated real time on the screen.

View - Flag - 3D Rotation - [Icons]

Arena Status

Arena	State	Start	Stop	Duration	Speed	Comment
1	Stop	0"	22"	22.16	60.96	Analyzer Stopped

Result

Event Dates: [Input Field]

Arena	Criteria	Route	Duration	%	Latency	Dist(mm)
1	Area:House 1 Center In Cage	1	22.16	100	0.00	626.13
1	Area:House 1 Hole In Object 1 [Disabled]	0	0.00	0.00		
1	Area:House 1 Hole In Object 2 [Disabled]	0	0.00	0.00		
1	Area:House 1 Hole In Object 3 [Disabled]	0	0.00	0.00		
1	Area:House 1 Hole In Object 4 [Disabled]	0	0.00	0.00		
1	Area:House 1 Hole In Object 5 [Disabled]	0	0.00	0.00		
1	Area:House 1 Center In Object 1	0	0.00	0.00		
1	Area:House 1 Center In Object 2	0	0.00	0.00		
1	Area:House 1 Center In Object 3	0	0.00	0.00		
1	Area:House 1 Center In Object 4	1	0.27	12.2	9.71	11.41
1	Area:House 1 Center In Object 5	0	0.00	0.00		
1	House 1 moving speed slower than 20.00 mm/s in Area:Object 1	11	7.34	30.2	2.16	176.54

Event

Arena	ID	Fr...	To...	Seq...	Event
1	2	5"	5"	0.4	House 1 moving speed slow...
1	3	4"	5"	0.9	House 1 moving speed slow...
1	4	6"	8"	1.9	House 1 moving speed slow...
1	5	9"	10"	0.3	Area:House 1 Center In Ob...
1	6	10"	11"	1.1	House 1 moving speed slow...
1	7	12"	13"	0.2	House 1 moving speed slow...
1	8	14"	14"	0.1	House 1 moving speed slow...
1	9	16"	17"	0.9	House 1 moving speed slow...
1	10	17"	18"	0.1	House 1 moving speed slow...
1	11	18"	18"	0.4	House 1 moving speed slow...
1	12	19"	19"	0.1	House 1 moving speed slow...
1	13	20"	20"	0.6	House 1 moving speed slow...

After the quality assurance process is complete, the results will be delivered to you in specified formats. Our customer centric culture has served us well for twenty years and we will work with you hand-in-hand to make sure the projects are completed on time and with the highest quality possible.

Your success is our success. Contact us for an immediate consultation at sales@cleversysinc.com.

Clever Sys Inc.

Behavior Recognition
Innovation makes the difference