GYPSY *Gyro-18*

The world's easiest, most accurate motion capture system.
With its 5 minute learning curve
GypsyGyro-18 is extremely simple to learn and use.
Makes time consuming data cleanup a thing of the past.

No data cleaning
Straight from capture to content creation or live performance. Save thousands of hours of data cleanup each year

No training
Simple user guide will have you capturing super-accurate motion within 5 minutes.

No calibration
From briefcase to capture in minutes.

No occlusions or marker swapping
Up to 16 individual actors can be captured simultaneously without occlusion or marker-swapping.

Life-like motion data
What you capture is what you keep. Data is much more lifelike than optical as GypsyGyro-18 directly records the actual rotations of the actor's body parts.
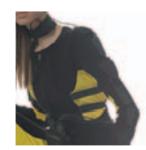
Capture anywhere
Indoors or outdoors - studio or office - on-site or on stage. Capture range up to 0.5 km (0.3 mile). Easy laptop operation allows for unlimited remote usage.

Portable
Complete system fits inside a small briefcase and weighs less than 2 kg (4.4 lbs). The GypsyGyro-18 is the most portable motion capture system ever developed.

Lightweight & flexible
No physical constraint of actor's movements. All sensors can be worn under normal clothes.

Props
Optional 19th sensor integrated for props.

18 tiny inertial sensors or gyros are attached to a flexible lycra suit, allowing superior precision and stability of motion data.

GYPSY

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France
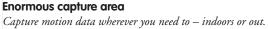*www.animazoo-europe.com +33 (0)1 40 50 19 88*

The future of motion capture

GYPSY *4*

The new Gypsy4 is sleek, lightweight and simple to operate.
Completely redesigned and weighing less than 4 kg (8.5 lbs),
Gypsy4 sets a new standard in motion capture.

Enormous capture area
Capture motion data wherever you need to – indoors or out.

Portable
Weighing only 4 kg the Gypsy4 is easy to transport. Begin capture in locations in less than 5 minutes. Easy laptop capture.

Quick to learn and easy to use
No need for dedicated technicians or steep learning curves.

Multi-actor system
Up to 16 individual actors can be captured at the same time.

Distortion free
No optical occlusions, no marker swapping, no magnetic interference.

True real-time mocap
The only systems in the world with no detectable lag.

Live performance animation
Proven tool for real-time performance and live events. Perform and capture wherever you need to.

Robust
With 3 previous versions and 8 years of development the new Gypsy4 is easier and more reliable than ever before.

Native BVH support
Supported by all major 3d animation programs.

Excellent SDK
Comprehensive software developer's kit with 12 months support included.

Affordable
World's lowest priced real-time motion capture system.

Constructed of moulded plastic for strength and durability. Lightweight and flexible to allow maximum freedom of movement and comfort.

GYPSY *Feature Comparison*

Comparison	GypsyGyro-18	Gypsy4	GypsyTorso	Optical	Magnetic	Tape
Occlusion-free	Yes	Yes	Yes	No	Yes	Yes
Roaming range	Yes	Yes	N/A	No	No	Yes
Auto calibration	Yes	N/A	N/A	No	No	No
Space metallic cleansing	No need	N/A	N/A	N/A	Needed	N/A
Data cleaning	Minimal if any**	Moderate	Minimal	Heavy**	Heavy w/ RT filters	Heavy w/ RT filters
Distortion by muscle	Zero with extra care	Minimal	Minimal	Minimal	Zero with extra care	High
Sensor placement routine	Sensors in dance suit	Strap 11 plates near joints	Strap 7 plates near joints	40 markers on dance suit	Sensors in dance suit	19 straps to tie tapes*
Sensor placement	Anywhere on rigid body	On specific points	On specific points	On specific points	On specific points	On in-exact "areas"
Solo wearing sensor rig	Simple	Simple	Simple	No way	No way	Simple
Solo operation	Simple	Simple	Simple	No way	No way	Simple
Fast moves	Cannot miss detection	Cannot miss detection	Cannot miss detection	Cannot miss detection	Can miss detection	Can miss detection*
Local motion accuracy	Extremely tight	Tight	Tight	Very tight	Loose	Loose
Slop from s/ware filters	No filters	No filters	No filters	None	Heavy	Heavy
Lag from s/ware Filters	No filters	No filters	No filters	Yes	Yes	Yes
Nuance preservation	Extremely high	Very high	Very high	Very high	Low	Low
Real-time events system	Ideal	Ideal	Suitable	Not suitable	Not suitable	Suitable
Rig worn under clothing	Yes	No	No	No	Partially	No
Install, set-up & mocap	10 min. by expert	10 min. by expert	5 min. by expert	30 to 60 min. by expert	2 to 4 hours by expert	10 to 20 min. by expert
Install & mocap -beginner	20 minutes	1 to 2 hours	1 to 2 hours	Days	Days	2 to 4 hours
Construction	Heavy-duty & tough	Not easily breakable	Not easily breakable	Not easily breakable	Not easily breakable	Easily breakable*
Rolling around on the floor	Easily done/no cleaning	Destroys data	Destroys data	Destroys data	Destroys data	Destroys data
Actors hugging or touching	Yes - inherent in design	Frontal only	Frontal only	Extremely difficult	Possible	Not possible
Sensor calibration in	5 to 6 min. automatically	Instantly, auto, on boot	Instantly, auto, on boot	10 to 60 min. manually	20 min. to all day	10 to 30 min. manually
New actor calibration in	5 to 15 min.	10 to 30 min.	5 to 10 min.	N/A	N/A	10 to 30 min.
Without any calibration	Works extremely well	Works well	Works well	Does not work	Does not work	Does not work
Sensor dislodge during use	Minimal	Minimal	Minimal	Minimal	Minimal	Considerable*

* Per user instruction manual   ** Inherent to the system

GYPSY *Technical Specification*

Technical	GypsyGyro-18	Gypsy4	GypsyTorso
Sensors	18 (1x2x3cm) inertial gyros	42 potentiometers & 1 gyro	23 potentiometers
Number of joints / Rotations sensed	19	17	10
Optional prop channels	1 (gyro sensor optional)	10 analog (sensors not included)	10 analog (sensors not included)
Simultaneous wireless actors	16 (64 optional)	16 (unlimited when wired)	16 (torso-wireless option)
Range outdoors	300 m radius	200 m radius	10 m radius
Range indoors same hall	100 m radius	100 m radius	10 m radius
Range indoors behind walls	30 m R*/20m R* steel walls	30 m R*/20 m R* steel walls	10 R* (cable ext. opt.)
Roaming range	Yes	Yes	No
Capture frames/Second	12/15/24/30/60/120	12/15/24/30/60/120	12/15/24/30/60/120
Sensor resolution	0.01 degree	0.125 degree	0.125 degree
Practical resolution	0.1 degree	1 degree	1 degree
Global translation sensing	Very precise footstep calculation	Precise footstep calculation	N/A
Translation sensing via optical	Yes	Yes	Yes
Can integrate with optical mocap	Yes	Yes	Yes
Magnetic field tolerance indoors	0.005 Gause @ 1 m=1% Drift	N/A	N/A
Magnetic field tolerance outdoors	100% tolerant	N/A	N/A
Occlusion	N/A	N/A	N/A
Actor measurement file	For highest accuracy only	For highest accuracy only	For highest accuracy only
Auto sensor calibration	Yes	Yes	Yes
User operating system	Windows® 2000, XP	Windows® NT, 2000, XP	Windows® NT, 2000, XP
PC / Laptop req.	Pentium® 2.8MHz or higher	Pentium® 366 or higher	Pentium® 366 or higher
Batteries supplied	NicMH 1600mA 9.6v	NicMH 1600mA 9.6v	N/A (AC adapter supplied)
DC input (battery) range	7.2 to 16 vDC	7.2 to 16 vDC	N/A
1600mA battery run time	3 Hrs (battery can be changed mid-action)	5 Hrs (battery can be changed mid-action)	N/A

*R = Radius   Windows® is registered trademark of Microsoft Corporation.   Pentium® is registered trademark of Intel Corporation.

GYPSY *Physical Specification*

Physical	GypsyGyro-18	Gypsy4	GypsyTorso
Set-up time (from opening case)	1 to 2 minutes	2 to 10 minutes	2 to 5 minutes
Time to put on sensor suit	2 to 5 minutes	2 to 5 minutes	2 to 5 minutes
System boot to capture	Under 7 minutes	Under 3 minutes	Under 3 minutes
Operating environment	Non-wet 0 to 40° C	Non-wet 0 to 40° C	Non-wet 0 to 40° C
System weight no battery	2 Kg	Under 4 Kg	Under 3 Kg
Actor size range	Unlimited	150 to 190 cm (5' to 6'4")	150 to 190 cm (5' to 6'4")
Actor weight range	Any weight	45-110 Kg (100-250 lbs)	45-150 Kg (100-380 lbs)
Suit material	Lycra dance-suit	Plastics, aluminium, foam	Plastics, aluminium, foam
Shipping weight	10 Kg (22 lbs.)	20 Kg (44 lbs.)	15 Kg (33 lbs.)
Shipping size	30x60x80 cm (12"x24"x32")	60x60x90 cm (24"x24"x36")	45x60x90 cm (18"x24"x36")
Warranty	12 mo. parts & labour	12 mo. parts & labour	12 mo. parts & labour
Software upgrades incuded	12 months	12 months	12 months
Phone & e-mail support	12 months	12 months	12 months
Optional extended warranty/Service contracts	2 & 3 years available	2 & 3 years available	2 & 3 years available
Delivery time	2 weeks	Immediate	Immediate

GYPSY *Torso*

Designed for upper body use. All the features of the Gypsy4 except walking. Ideal for real-time performance, exhibitions, events and smaller budgets.
Upgradeable to Gypsy4.

GYPSY *Hybrid*

Gypsy systems are flexible and integrate easily with optical systems. Add multiple Gypsy systems (tracked with or without optical root-node markers) and capture many actors simultaneously without occlusion or increased data cleaning.

3 systems together G4/Gyro/Optical