

NICON

Rigid Bodies

User Guide



Introducing Vicon Rigid Bodies kits

Vicon Rigid Bodies enable you to track and measure people and objects using fixed, accurate markers. You can be up and running quickly with an easy-to-apply, comfortable-to-wear set of rigid bodies for six-degrees-of-freedom tracking of human body segments or objects.

A predefined model for each recommended unique cluster means no subject calibration, and the kit is compatible with Vicon Tracker.

Kit options

Three Rigid Bodies kits are available, depending on your tracking needs:

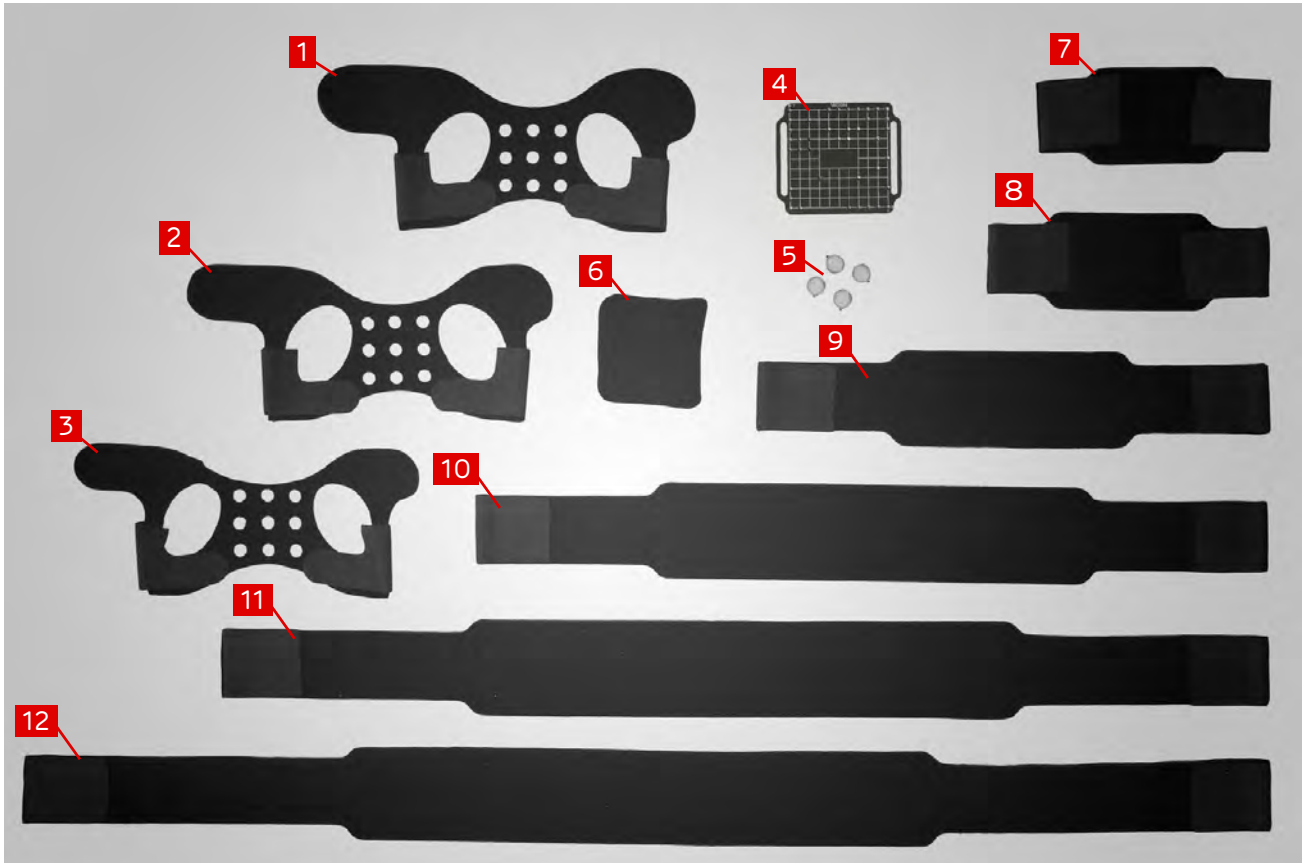
- Full body kit
- Hands and head kit
- Object kit

This guide describes what you need to get started using any of these kits.

Custom sizes are available as special order items.

Full body kit

Human tracking for ergonomics applications



What's included

This kit provides 14 rigid body plates with straps for human tracking for ergonomics applications.

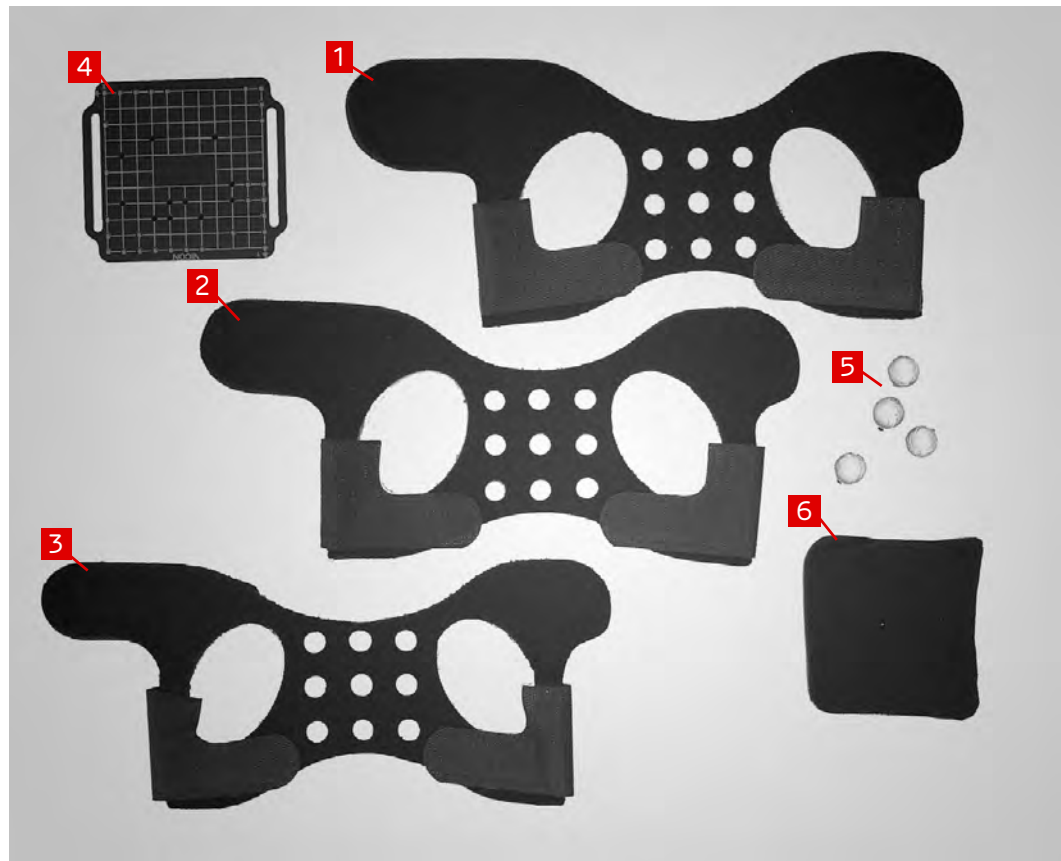
Note: If required, you can also order a clip-on frame suitable for stereoscopic glasses.

Image	Part	Quantity	Part #
1	Large hand strap	2	AYY002A
2	Medium hand strap	2	AYY003A
3	Small hand strap	2	AYY004A
4	Rigid Body plate	14	AYE001A
5	Markers	61	AYY001A
6	Foam pocket	14	AYY016A
7	Lower arm strap	2	AYY006A
8	Upper arm/lower leg/foot strap ¹	6	AYY014A
9	Upper leg strap	2	AYY005A
10	Small pelvis/chest strap	2	AYY010A
11	Medium pelvis/chest strap	2	AYY009A
12	Large pelvis/chest strap	2	AYY008A

1.The upper arm, lower leg and foot straps are identical

Head and hands kit

Human tracking for virtual environment applications



What's included

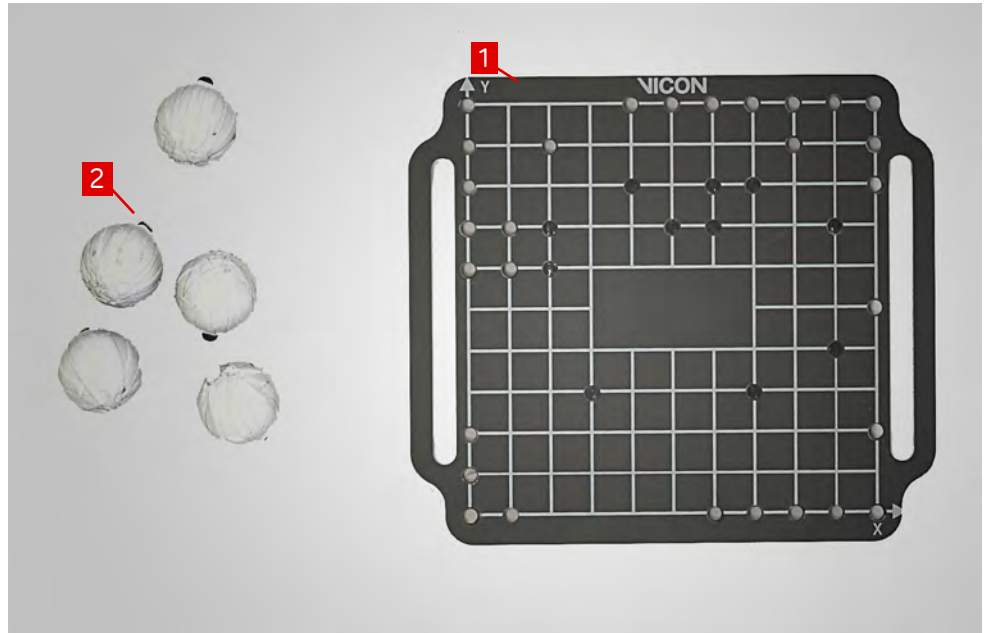
Image	Part	Quantity	Part #
1	Large Hand Strap	2	AYY002A
2	Medium Hand Strap	2	AYY003A
3	Small Hand Strap	2	AYY004A
4	Rigid Body Plate	2	AYE001A
5	Markers	10	AYY001A
6	Foam pocket	2	AYY016A

This kit provides two rigid body plates with straps to suit human tracking for Virtual Environment applications that require tracking of a single subject's head and hands.

Note: If required, you can order a clip-on frame suitable for stereoscopic glasses.

Object kit

Object tracking for robot or unmanned aerial vehicles (UAV)



What's included

Image	Part	Quantity	Part #
1	Rigid Body Plate	1	AYE001A
2	Markers	5	AYY001A

This kit provides one rigid body plate with five markers for attaching to robots or unmanned aerial vehicles (UAV).

Assemble the straps

Before attaching the straps you need to assemble them.

1. Determine which size strap you need for each body part by trying on the straps and adjusting the VELCRO® closures.
2. Attach the foam pads to each rigid body plate.
3. Attach the rigid body plates to each strap.



Attach the straps

When you have assembled the straps, you can place them on the subject.

Note: The hand straps may be used on either hand. See the image in [Assemble the straps](#) above.

1. Attach a strap to each body part as required.
2. Adjust the VELCRO® closure to tighten or loosen each strap.



Recommended arrangement of markers

The table (right) provides the recommended arrangement of markers on the rigid body plates. This arrangement will help maximize the effectiveness of marker tracking.

Note: To identify the rigid body plates, attach a sticker to the middle of each plate. You can name or rename the object in the Vicon Tracker software to match the identification on the rigid body.

Co-ordinates for 14mm markers

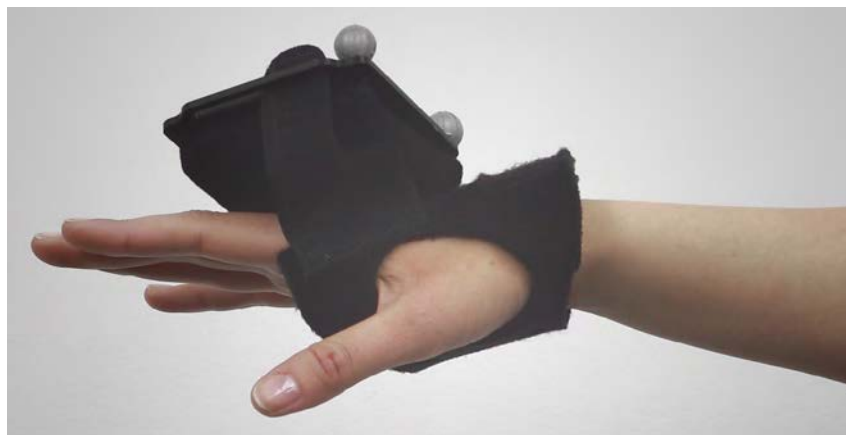
	X	Y		X	Y
	0	0		0	0
Object 1	56	0	Object 11	49	0
	0	42		28	56
	56	70		70	70
	0	0		0	0
Object 2	56	0	Object 12	70	0
	0	49		7	42
	56	63		49	70
	0	0		0	7
Object 3	70	0	Object 13	63	0
	0	42		14	49
	70	56		49	56
	0	0		7	0
Object 4	63	0	Object 14	56	0
	0	42		0	70
	63	49		42	49
	0	0		0	0
Object 5	70	0	Object 15	70	0
	0	49		0	49
	70	63		35	70
	0	0		0	0
Object 6	49	0	Object 16	56	0
	0	42		0	49
	49	70		42	70
	0	0		0	14
Object 7	63	0	Object 17	56	0
	0	56		14	63
	63	70		56	63
	0	0		0	0
Object 8	70	0	Object 18	0	49
	14	49		63	28
	56	63		49	70
	0	0		0	0
Object 9	42	0	Object 19	0	63
	7	49		70	14
	63	70		35	49
	0	0		0	0
Object 10	49	0	Object 20	70	0
	14	42		28	70
	70	63		70	63

Washing the straps and pads

Vicon Rigid Body straps are manufactured using high-quality nylon that is built to last. Routine care and maintenance will ensure the highest performance from the straps and extend their useful lifespan.

Caution: This product contains Neoprene. If you exhibit signs of an allergic contact dermatitis, please stop using it immediately.

Note: This product does not contain Latex.



- ▮ For pads, remove the foam from the pouch before washing.
- ▮ Hand wash or spot clean only in cold water (40°F/4°C) using a mild detergent.
- ▮ Allow to air dry.
- ▮ Do not tumble dry, iron, or dry clean.
- ▮ Do not use fabric softener.

Contact Vicon

To order parts for your Vicon Rigid Bodies kit(s), please contact Vicon.

Note: For marker replacement, please specify the thread count.



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