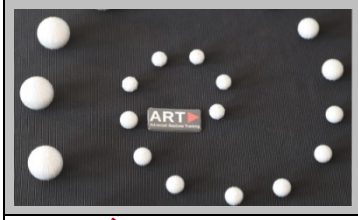
Passive and active markers

ART provides a variety of different markers and marker types, according to the requirements of each installation.

Passive Markers

Passive markers are retroreflective, i.e. they reflect the incoming IR radiation into the direction of the incoming light.



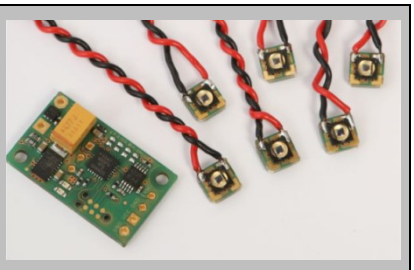


Our passive markers in comparison

Marker type	Visibility	IR Range	Description
Spherical	from all sides	4 – 10m*	- standard all-purpose marker - however sensitive surface
Spherical coated	from all sides	3 – 7m*	- robust surface
Flat	limited +/- 45°	4 – 10m*	- cheap - sensitive or robust surface possible
Ring markers	along marker axis: +/-45° perpendicular to marker axis: 360°	4 – 10m*	- to be attached to cylindrical objects - can be used for 3D glasses, drawing pens, tools,… - can be combined with ball markers - cheap

** depending on tracking camera type and marker size*

Active Markers

In ART tracking systems different types of LED-based active markers are used, depending on the application.

All active markers provided by ART are controlled by special electronics that ensure synchronization with the tracking cameras and require a power supply.

Active markers are often a good choice when working in environments where strong reflections from IR flashes or non-specific reflections from sunlight occur.

Our active markers in comparison

Marker type	Visibility angle	IR Range	Description
Active LED markers without housing	up to +/- 80°	up to 20m	- electronics (AMC) and power supply necessary - can be covered with acrylic protection film
Active LED markers with diffusor	up to +/- 80°	up to 20m	- electronics and power supply (AMC) necessary - diameter 14mm in total, height 6mm
AMC (Active Marker Controller)	---	---	- up to 6 active markers of both types can be connected - power supply of 3-5 V is required

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