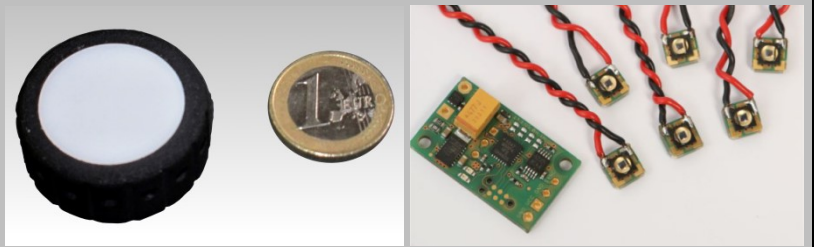


ART provides a variety of different markers and marker types, according to the requirements of each installation.

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. Power is supplied either by USB or battery.



Our active markers in comparison

Marker type	Visibility	IR Range	Description
Single LED	limited +/- 60°	up to 10 m	- electronics (AMC) and power supply necessary - can be covered with acrylic protection film
Big active flat	visibility angle up to 180°	up to 20 m	- electronics and power supply (AMC) necessary - suitable for outdoor tracking - magnetic base for easy positioning on metal surfaces
AMC (Active Marker Controller)	---	---	- up to 6 single LED active markers or - up to 2 big flat active markers can be connected

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 – 10 m *	- standard all-purpose marker - however sensitive surface
Spherical coated	from all sides	3 – 7 m *	- robust surface
Flat	limited +/- 45°	4 – 10 m *	- cheap - sensitive or robust surface possible
Ring markers	along marker axis: +/- 45° perpendicular to marker axis: 360°	4 – 10 m*	- 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