AUGMENTA

A tracking technology for creative people

Developed and maintained by THÉORIZ

WHO ARE WE?

We are a multi-awarded studio gathering a team of professional engineers, visual artists and creative developers. We combine scientific and artistic research to craft beautiful and creative experiences.

Discover our world : https://vimeo.com/194838088

Passage / THEORIZ©

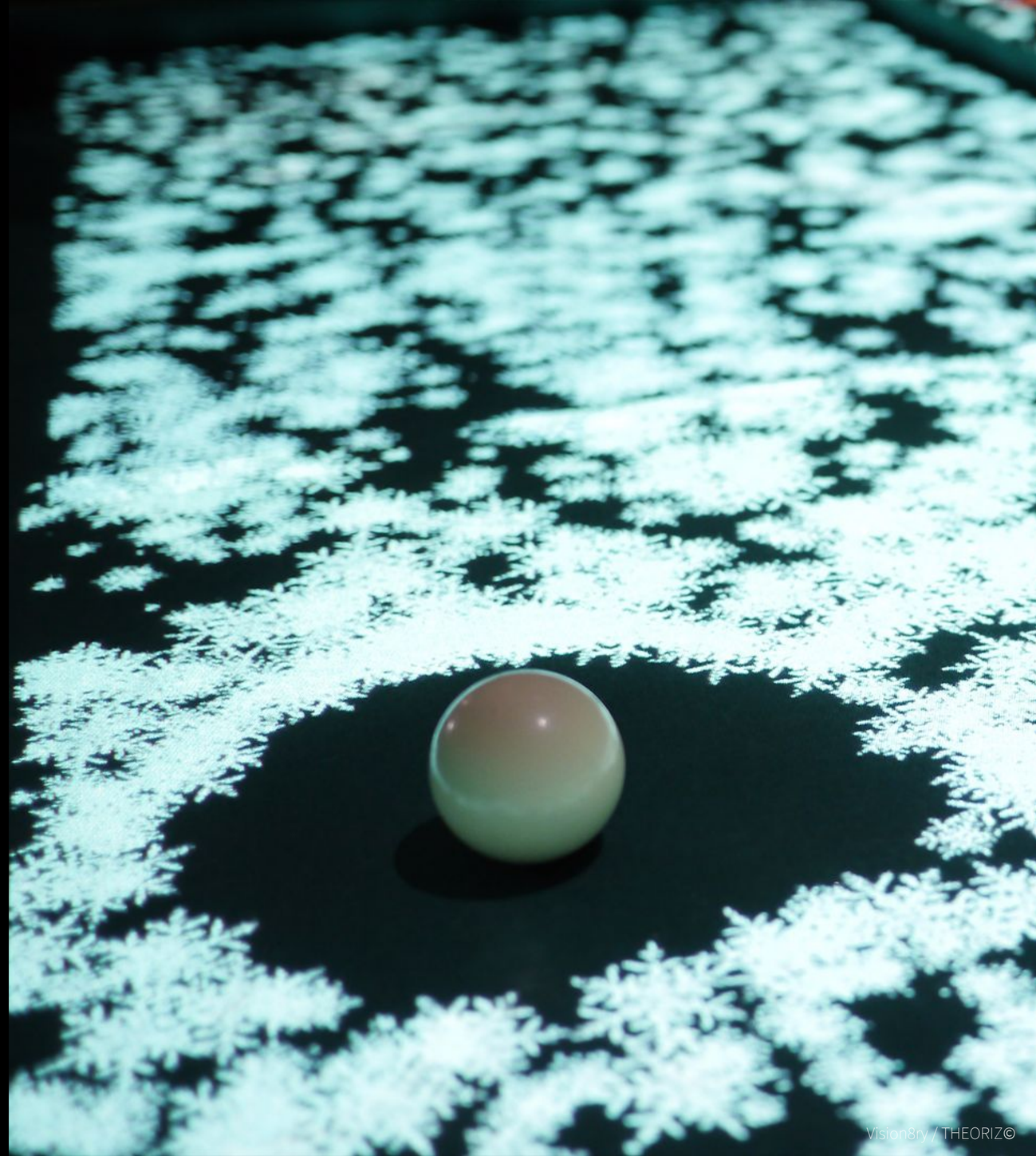
THE TECHNOLOGY

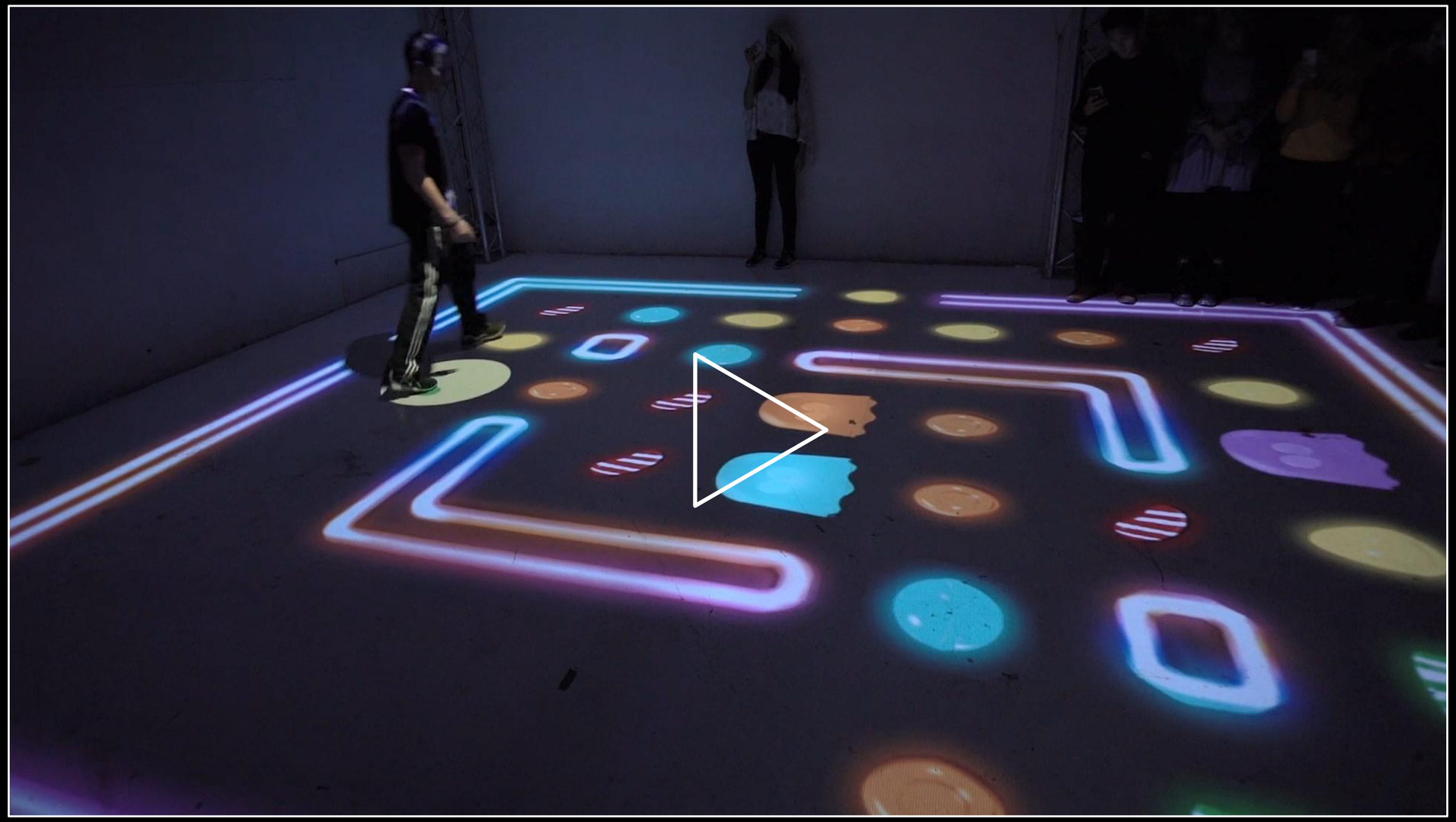
Augmenta® is a sensorless tracking technology for creative applications.

People and objects can be tracked without limitations of number of people or area size.

The tracking data are provided by the system through open protocols compatible with most video, audio, or light creation softwares.

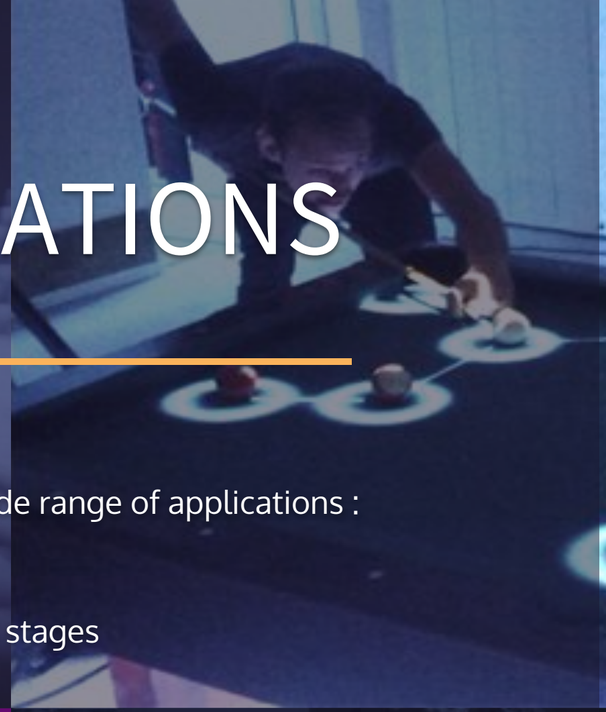
The technology has been designed for events or permanent installations in mind. It can be deployed and calibrated in a short period of time and features all the tools for long term monitoring.

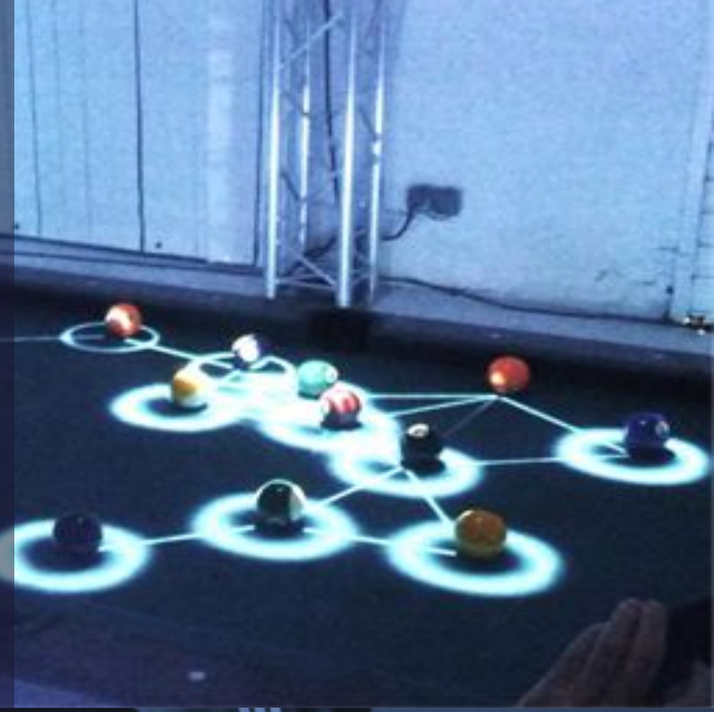




Watch Augmenta in action : https://vimeo.com/323923994/8c45c9de5c

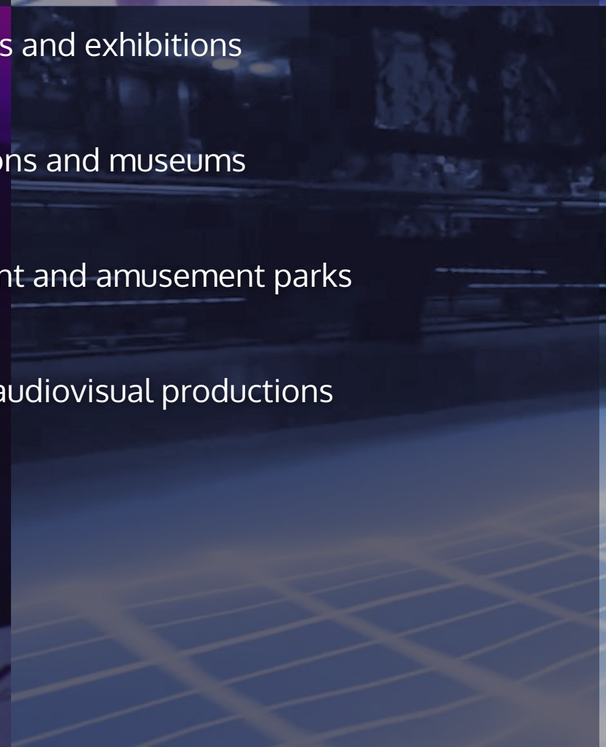
APPLICATIONS





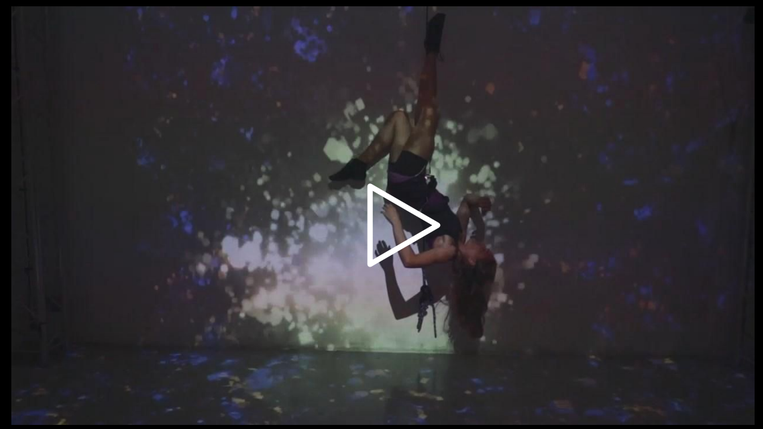
Augmenta® can be used for a wide range of applications :

- Theatres and stages
- Events, shows and exhibitions
- Art installations and museums
- Entertainment and amusement parks
- Cinema and audiovisual productions



REFERENCES

Mixed Reality research by THEORIZ Studio
vimeo.com/220883711

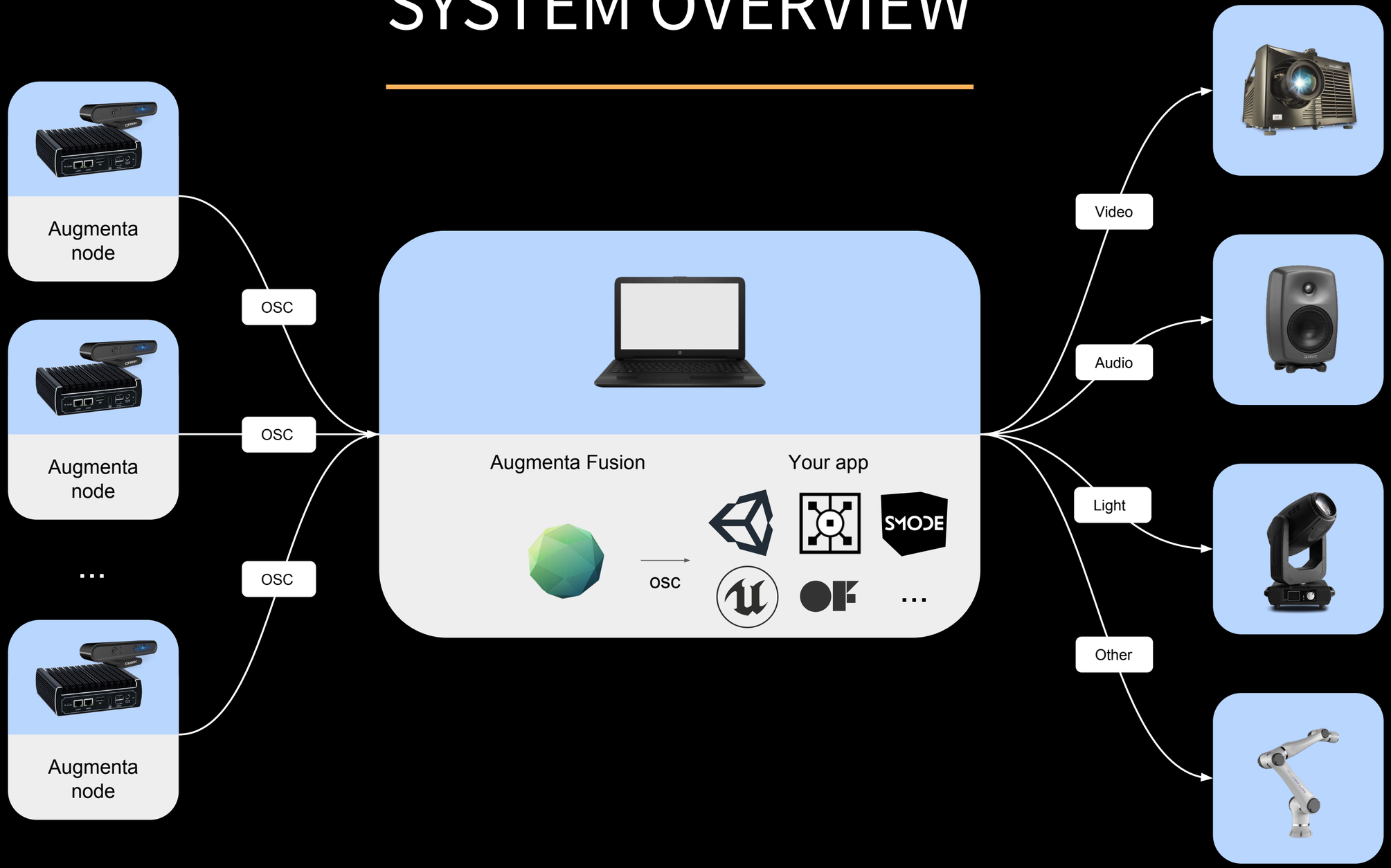


Vertical dance research by THEORIZ Studio
https://vimeo.com/324834876/f942d9c260

PASSAGE short movie by THEORIZ Studio
vimeo.com/266423627

Here are some projects example using Augmenta® technology for different uses.

SYSTEM OVERVIEW



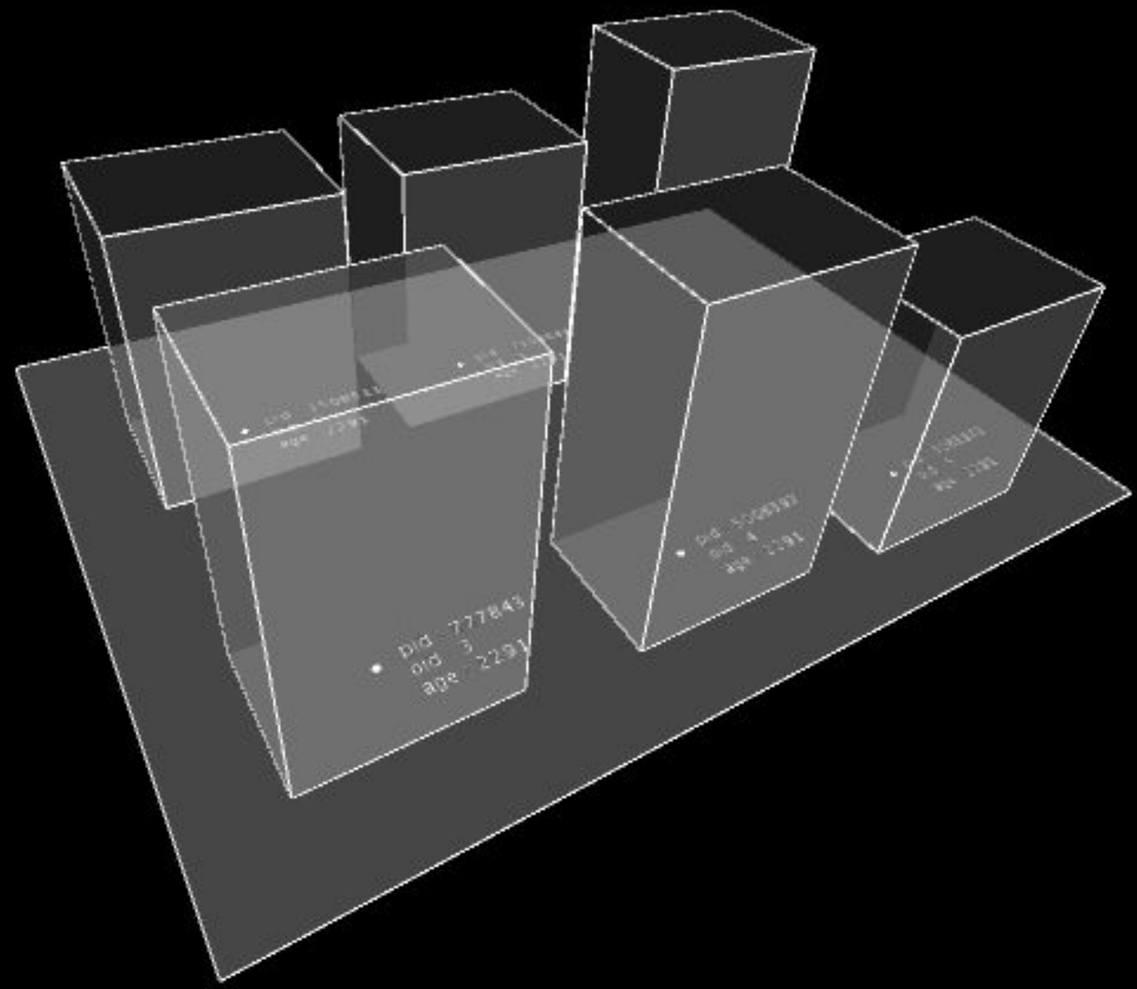
TRACKING DATA

Augmenta® provides the 3D bounding box of every tracked objects or people through the network. The data are :

- Centroid position
- Size of the bounding box
- Speed
- Tracking ID
- Time spent in the zone
- Global number of people
- Global time spent
- Global speed

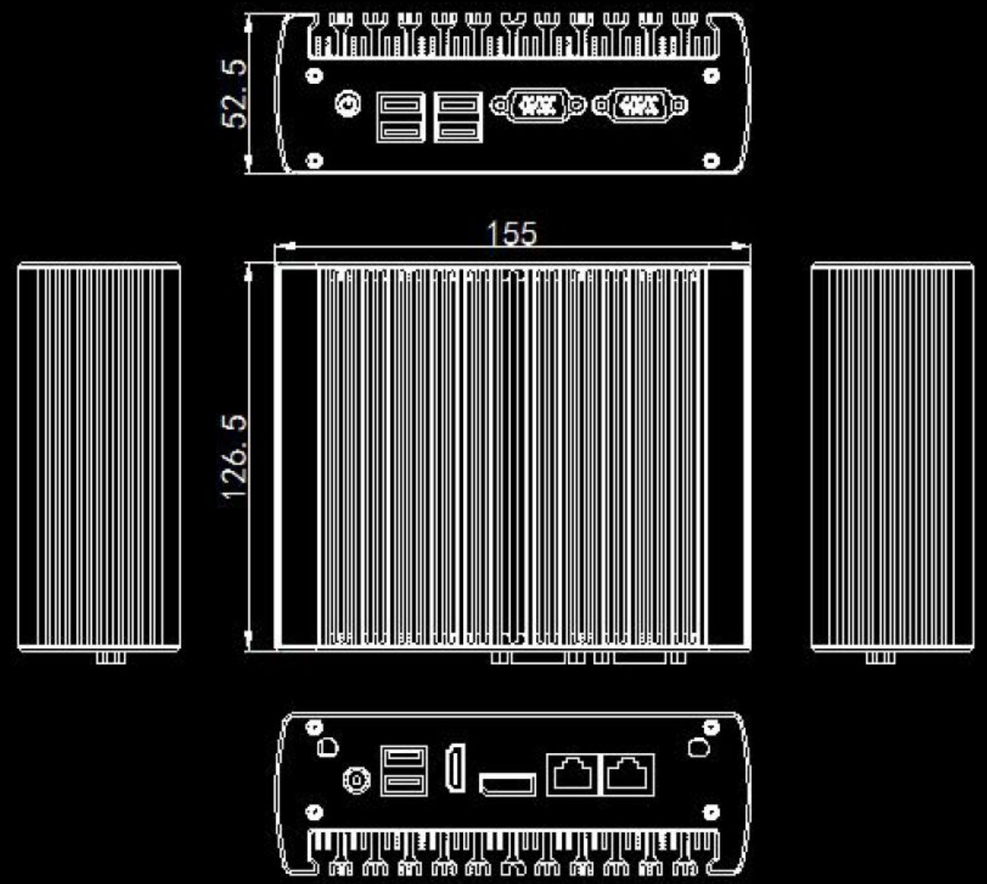
The complete protocol documentation can be found here :

https://github.com/Theoriz/Augmenta/wiki#data



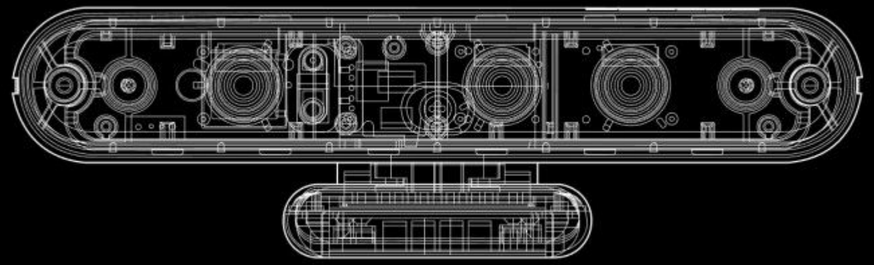
HARDWARE SPEC

AUGMENTA NODE	
Material	Black aluminium (dustproof design)
Noise	0db (Fanless design)
Work temp	-10° / +50°C
Work Humidity	0% / 95% non-condensing
Dimension	155 * 126.5 * 52.5mm
Hanging	VESA bracket or light hook
Remote boot	Electricity and WOL enabled
Remote access	Web interface
CPU / RAM / Disk life expectancy	~10 years (industrial grade)



The nodes are industrial computers that are fully tested in house before delivering to be suited for both temporary or long term permanent use.

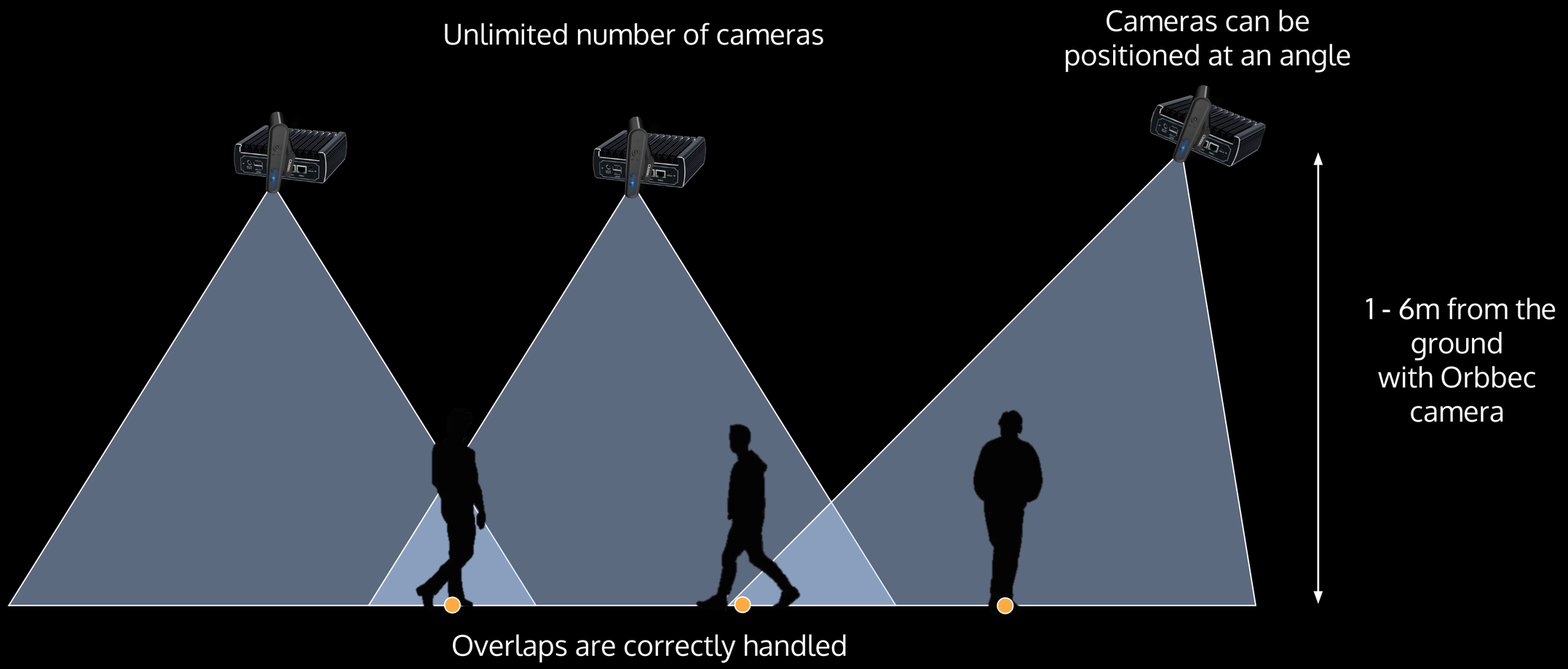
HARDWARE SPEC

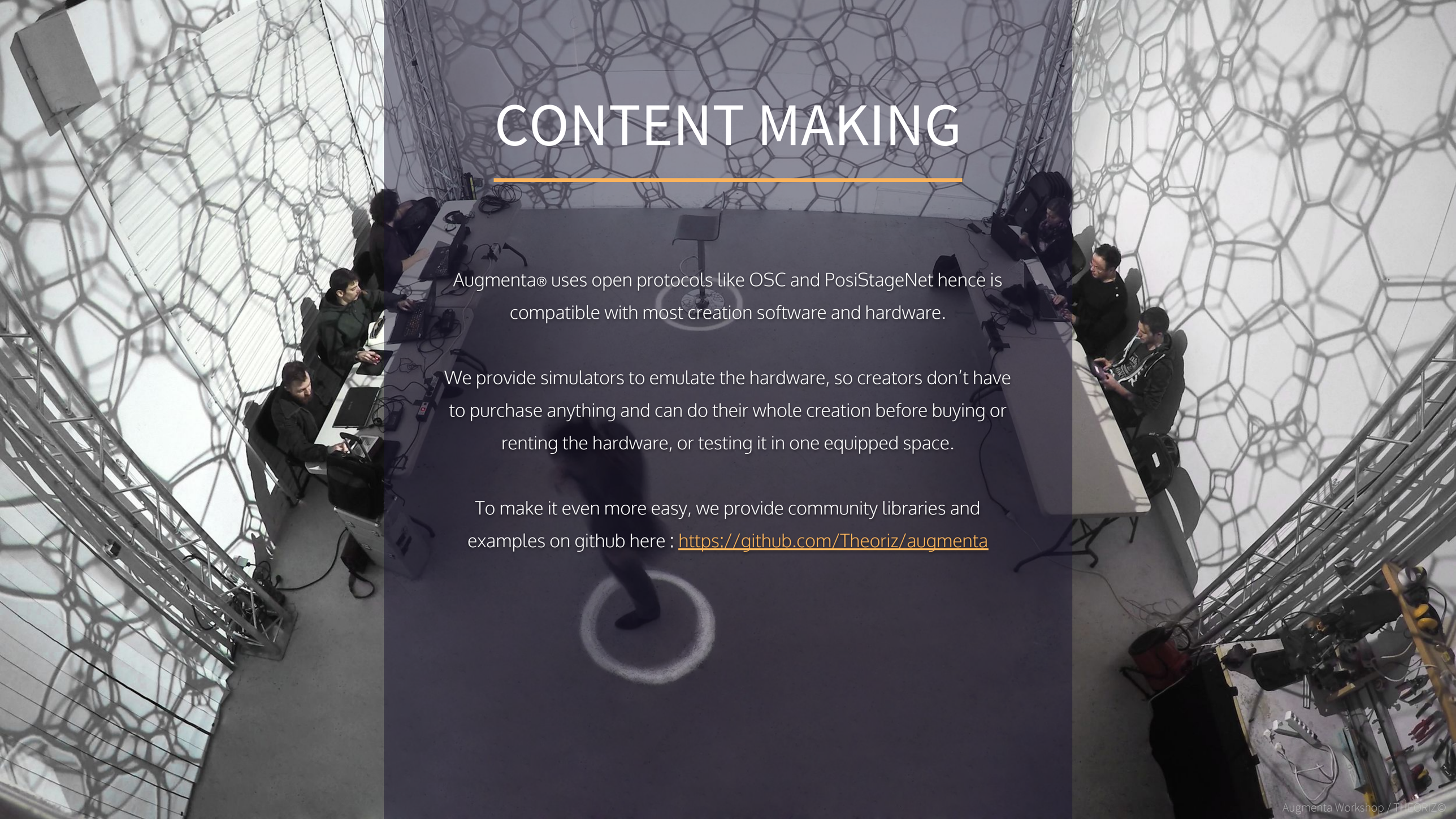


3D CAMERA (Orbbec Astra)	
FOV	60° horiz. x 49.5° vert.
Depth resolution	640x480
Max detection distance	~6m
Number of person tracked	infinite
Approx. weight	1.3 kg
Throw Ratio	0.87:1
Area covered at 5m	~ 5.8m x 4.6m
Data frequency	30Hz
Wavelength	Infrared (~827-850nm)

Augmenta® supports natively a wide range of 3D cameras and lasers. At the time of writing, the best performance is achieved with the Orbbec Astra camera.

INSTALLATION





CONTENT MAKING

Augmenta® uses open protocols like OSC and PosiStageNet hence is compatible with most creation software and hardware.

We provide simulators to emulate the hardware, so creators don't have to purchase anything and can do their whole creation before buying or renting the hardware, or testing it in one equipped space.

To make it even more easy, we provide community libraries and examples on github here : https://github.com/Theoriz/augmenta

THANK YOU!

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www.augmenta-tech.com
contact@augmenta-tech.com

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