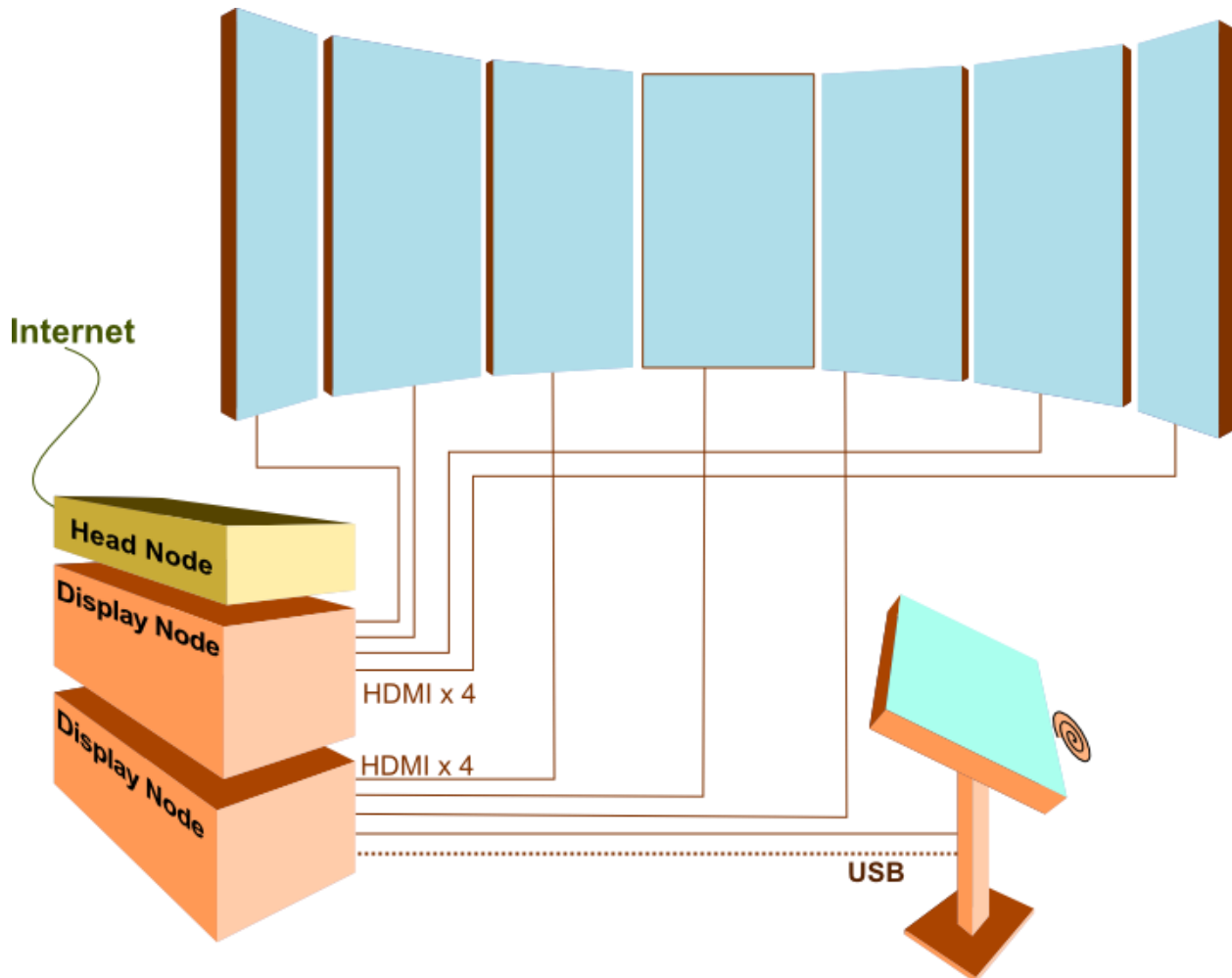




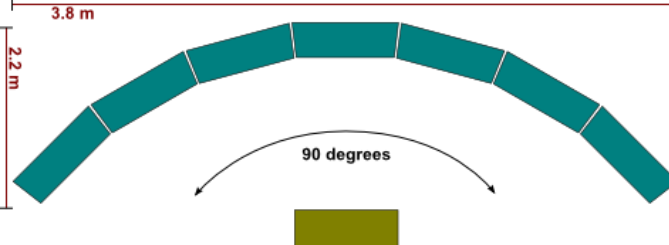
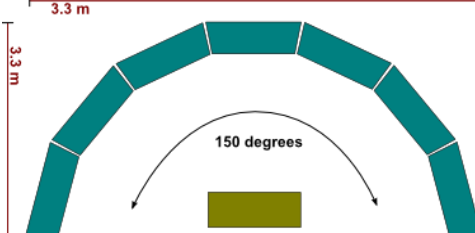
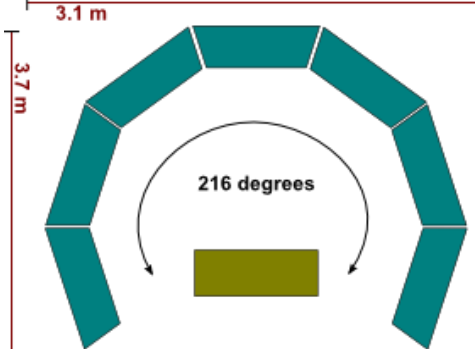
System Overview

The Liquid Galaxy runs on a group of servers, with one “Head Node” running applications, connecting to the Internet, and managing traffic within the system. Other “Display Node” servers are *n*-scalable with each node powering up to 4 displays. Users can navigate and control the system via USB with a touchscreen and 6-axis mouse controller, usually mounted on a podium:



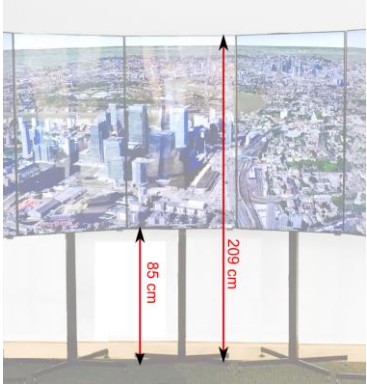


Footprint

The Liquid Galaxy is n-scalable for the number of screens, with a 7-screen setup being most common. The footprint can vary, depending on the degree of arc in the screens:

	<p>The most open format has screens set at 15-degrees. This 7-screen system is best for conference rooms, event presentations, and anywhere that more than 2 or 3 people will be participating. This layout is inviting and widely viewable.</p>
	<p>The 25-degree angle format provides a 150 degree view-- almost a full semi-circle-- and gives a great sense of immersion while still being open enough for small groups.</p>
	<p>The 36-degree angle format is the most immersive, and almost totally surrounds the viewer with a 216 degree view. An intense viewing experience, this format is best for single users in more experimental or playful environments (like a science museum or aquarium).</p>

Dimensions

<p>Servers: 77cm height 74cm width 79cm depth</p>	
<p>Podium: 97cm height 82cm width 51cm depth</p>	
<p>Frame with 55-inch screens: 209cm height total 85cm height below screens</p>	



Shipping

The Liquid Galaxy can be packed for transport into five travel cases:

Display Cases (2)	Custom-built 4 slot padded flight case 2 pallets, 545lbs. 247Kg. each 59x22x22 inches each, 150x56x60 cm each
Server	Hardened-travel case 1pallet, 150lbs. 68Kg. 48x45x40 inches, 121x114x101 cm
Utility	Custom-built padded flight case 1pallet, 220lbs. 100Kg. 49x30x30 inches, 124x76x76 cm
Masts	Custom- built flight case 1pallet, 350lbs. 159Kg. 72x9x9 inches, 183x 23x 23 cm



Compatible Displays

- Any HDMI-capable display should work with the Liquid Galaxy
- End Point standard display is Samsung DB-55E (55-inch)
- Projectors will work, but may need edge-blending calibration
- Screens may be mounted on a frame or wall-mounted
- Screens from 27-inch to 60+ inches have been used successfully
- Screens can be arranged in multiple rows (1 row of 7, 2 rows of 5 screens, or even a 6x8 array have been done)



Network and Power

Power Requirements

- If using 100-120 V Service: Two 20 amp circuits (one for computers, one for screens).
-- or --
- If using 220-230 V Service: Two 10 amp circuits or Two 16A circuits (one for computers, one for screens).

Network Requirement

- A single 15 Mbps down/5Mbps up LAN drop with **DHCP** enabled should be considered a minimum. More bandwidth will correlate with performance improvements.

Required Ports for Liquid Galaxy

All ports below need to be open in the outbound direction. No port forwards (DNAT) need to be created for inbound traffic.

22	TCP	ssh
80	TCP	http
123	UDP	ntp
443	TCP	https
5831	TCP	portapt
5832	TCP	portapt
11371	pgp	public key server port (http://www.speedguide.net/port.php?port=11371)
31767	TCP	zabbix (monitoring)
42873	TCP	rsync