

KNOWMORE (House Of Commons) – 2010: TECH SPECIFICATION

See <http://www.embodiedmedia.com/#/page/knowmore-house-ofcommons> for videos/reviews/images

Knowmore consists of a large circular table spun by hand, a computer-controlled video projection that falls on its top, and a six channel interactive audioscape. Participants' presence around the table and how they touch its top are registered, allowing up to five people to collaboratively evolve the work's sound and vision.

The core of the work's graphics and interactivity are authored in 3D game engine Quest3D 4.2.2 – which runs on a fast PC with a high-end graphics card. The touch sensitive top coding is authored in Max VNS 2.1 (Very Nervous System) and requires infrared lighting and an infrared sensitive camera. This system runs on a discrete mid end Macintosh. This in turn is networked to a third Mac or PC running Max MSP 5, which in turn drives the soundscape via 6 channels of loudspeakers. This runs on a Mac or PC via a Mini Motu Firewire audio interface.

The embedded sensors in the work include:

- Motion/rotation of table – via a sensor mounted in table base
- Position around table – sensed via pressure sensitive matting
- Zones/movement qualities upon table top – via a firewire camera, infrared lighting and VNS computer vision software.

The table is a 1.5m diameter item of commercial furniture and has the consequent tactile feel and heavy weight. It spins on a custom steel bearing supported by a single, steel leg assembly. A series of rugged pressure mats that the participants stand upon surround the table and are constructed upon thick rubber supports covered with black carpet. Four infrared spotlights hang on a circular assembly above the table and an infrared camera is mounted directly above the table.

The entire work travels in two custom-built road cases. This makes for a rugged work, well suited to touring.

-- Case 1: 1m x .62 x .56m = 0.35 cubic metres approx weight - 120KG

-- Case 2: .35 x 1.68 x 1.88 = 1.1 cubic metres approx weight - 110KG

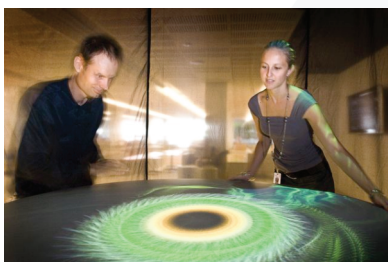
Depending upon cost and method of freight we would prefer the local venue to supply some of the computing from List 1 to save on costs. However this is the basic package:

List 1: WE SUPPLY:

- PC (Intel Core 2 Quad Q9300 CPU, 2.50 GHz, FSB 1333MHz, 2x3MB L2 Cache) with MSI GF9800GTX overlocked graphics card running a Quest 3D application
- G4 Mac Laptop running a Max/VNS application
- Intel MacMini running a MaxMSP patch with Motu audio interface
- Unibrain Firewire camera with variable C Mount Lens (mounting not supplied)
- Infrared LED lighting and circular support (requires hanging chains, not supplied)
- Firewire repeater cables – approximately 6 metres to reach roof camera
- 1.5m diameter 25mm thick Melamine tabletop
- Solid steel single leg table, bearing, and supporting feet
- Touch sensitive rubber mats with black carpeted cover
- 1 or 2 traveling roadcases for above

List 2: YOU SUPPLY:

- Dense black, light tight space, with minimal sound spill
- 5 powered speakers mounted at ear height, ideally hanging (power/quality to suit venue)
- 1 x Sub (power/quality to suit venue).
- Wiring for speakers – (suits Mini Motu interface's 6 balanced stereo jacks socket outs)
- 3500-5000 lumen data projector and roof mount
- Masked mirror to suit final picture size - 1.5m top to bottom, size placement to be determined – or alternatively hang projector pointing down
- Additional firewire repeater cables if required by roof height.
- Hanging chains for infrared lighting
- 2x 15" or larger analog or digital monitors with DVI connections, 2x USB mice (tbc) and 2x keyboards (tbc)
- Vented secure computer cabinet for 1 full size PC tower, 2 supplied monitors, mice and keyboards.
- Technical assistance in set up – general set up, construction.
(Set up time approximately 2-3 days depending on room pre-prep).



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