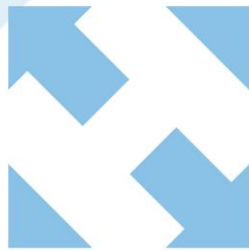




H A R P

VISUAL COMMUNICATION SOLUTIONS



If you would like Harp Visual Communications Solutions to help you deliver your Video Wall, please call us on 01329 844005 and ask for our new business manager. We look forward to showing you the bigger picture.

Tel: 01329 844005

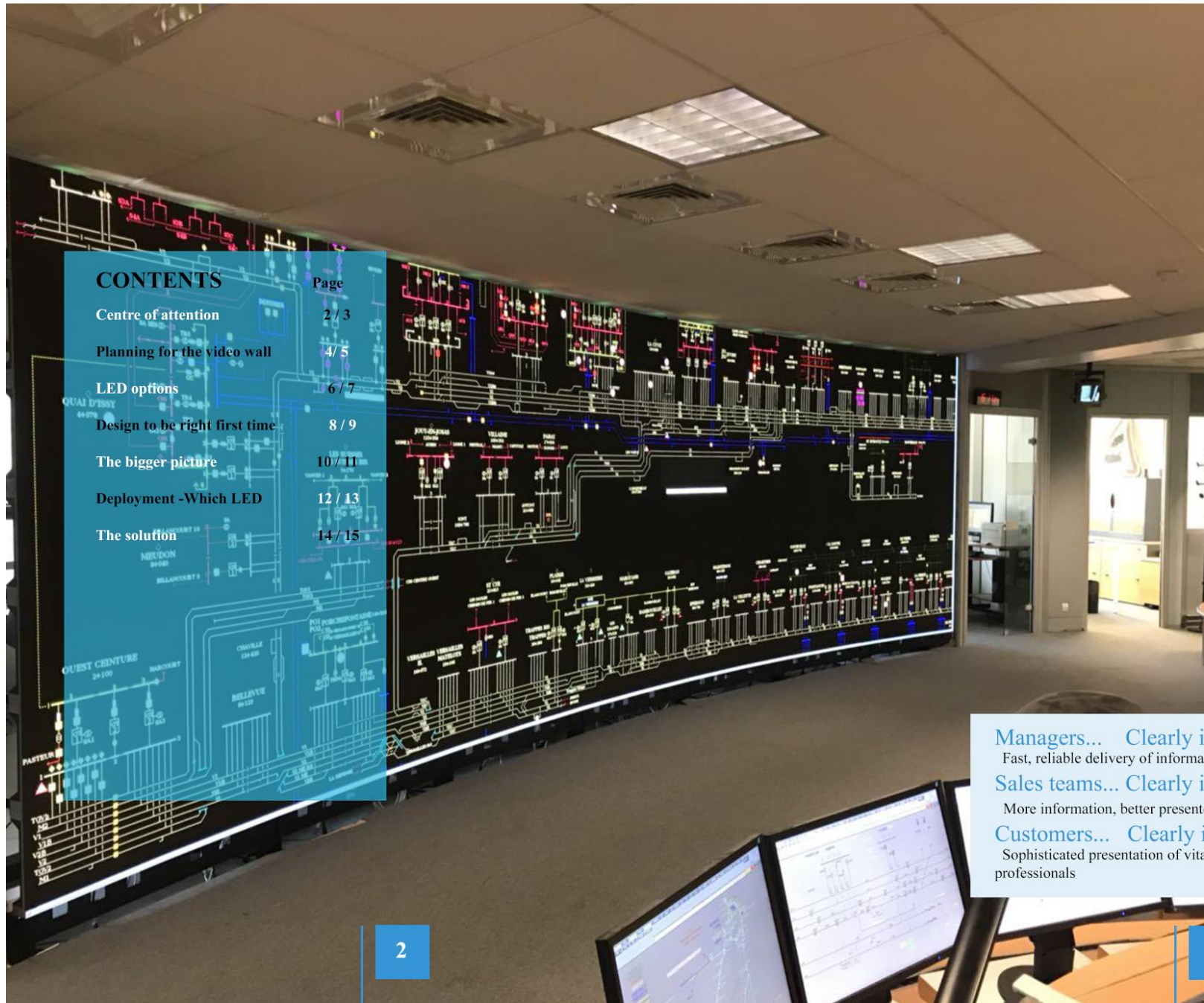
Website: [www.harpvisual.com](http://www.harpvisual.com)

Email: [sales@harpvisual.co.uk](mailto:sales@harpvisual.co.uk)

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LED VIDEO WALLS



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In a control room environment, being seen to have complete control is as important as having that control - to keep customer confidence running high, and operations smooth.

Harp is a UK-based engineering company which has spent years developing both the expertise and supporting products needed to design the effective control room and multi-screen solutions. Solutions which integrate with each customer's particular processes, operating systems and people to put them clearly and visibly-in control.

Unlike manufacturers who rely on and sell only their own solutions Harp is able to select the most appropriate systems and tools on the market and integrate them with its own drive electronics. These proprietary tools allow the working systems to be adapted and tailored to the way you wish to work now, while being open to future changes.

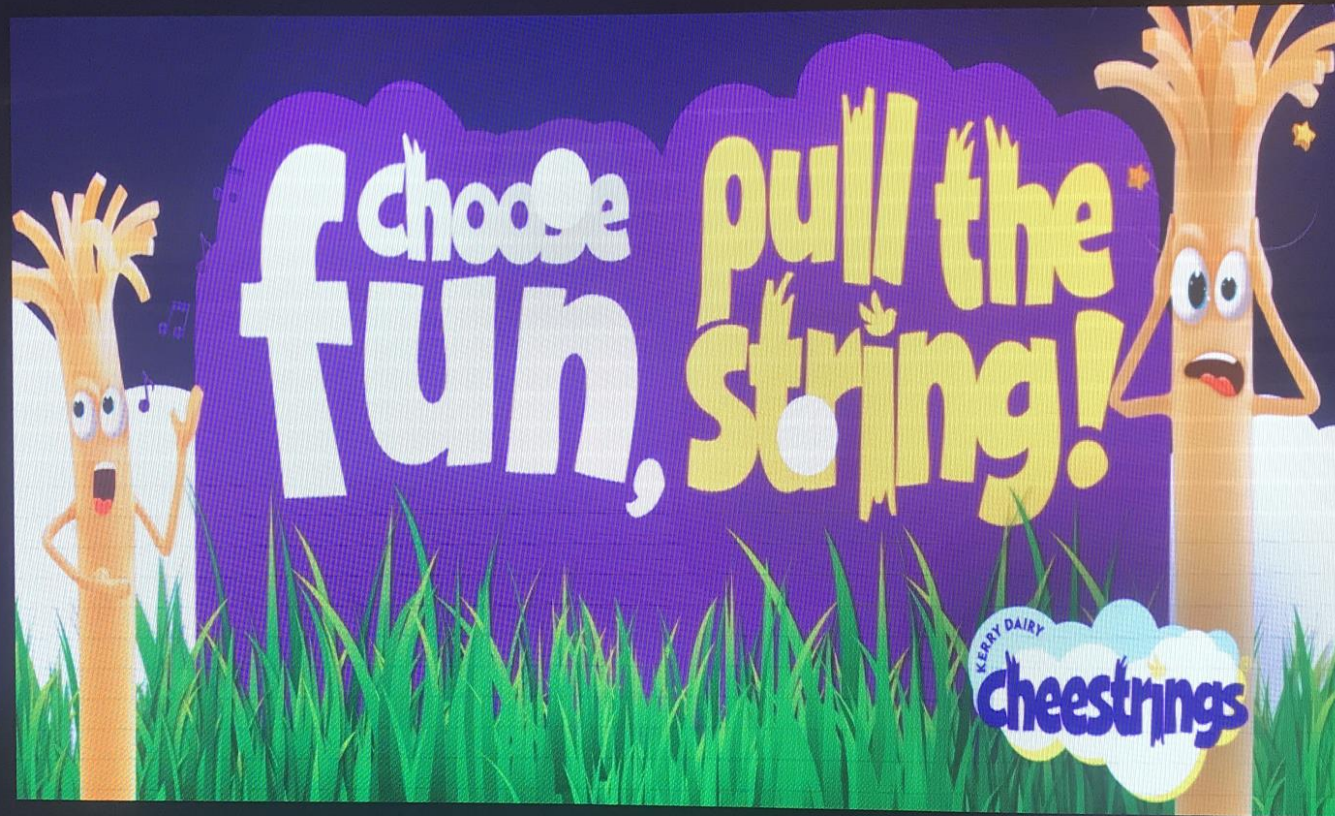
It is this combination of technological expertise and total management ability that has made Harp Visual Communication Solutions one of the largest installers of video walls in the UK.

**Managers... Clearly in control**  
Fast, reliable delivery of information to facilitate decision making process

**Sales teams... Clearly in control**  
More information, better presented, shows customers you have every angle covered

**Customers... Clearly in control**  
Sophisticated presentation of vital information assures customers they are being dealt with by professionals





## Objective

Companies use video walls as the main interface to their network and processes, to enable different groups to see the 'bigger picture' of what is happening, and to manage and control (sometimes vast) operations from one central point. Demonstrating a commitment to sophisticated, hi-tech solutions also shows a commitment to providing the best for customers. Harp spends time defining parameters for each new installation to ensure the final solution meets every requirement.

## Audience

Operators need access to information as needed and the ability to deploy decisions. They need to work on faults and incidences locally, while monitoring the overall picture to ensure priorities are correctly assigned.

Managers need to see that their operators are comfortably receiving the information they need, and so maintaining customer confidence in both the ability and competence of the business.

Sales and marketing teams may need access to customer-specific information in contrast to the 'overview' information already on display. This can be provided through a 'Viewing Gallery', in which the required information can be monitored and manipulated on a dedicated section of the display wall without impacting the overall operation.

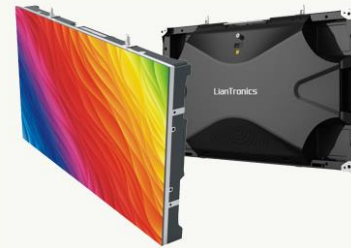
**Fine Pitch LED**



**V0.8**  
Pixel Pitch 0.8 mm  
Panel Size 325 x 365 mm



**VA0.9**  
Pixel Pitch 0.9 mm  
Panel Size 600 x 337.5 mm



**VA1.2**  
Pixel Pitch 1.2 mm  
Panel Size 600 x 337.5 mm



**VA1.5**  
Pixel Pitch 1.5 mm  
Panel Size 600 x 337.5 mm



**VA1.8**  
Pixel Pitch 1.8 mm  
Panel Size 600 x 337.5 mm



**VA2.5**  
Pixel Pitch 2.5 mm  
Panel Size 600 x 365 mm



**VLO4**  
Pixel Pitch 4 mm  
Panel Size 480 x 240 mm



**KSLIM6**  
Pixel Pitch 6 mm  
Panel Size 1000 x 500 mm

**Our Partners**







It is very important that sufficient time is given to the initial planning phase, to ensure that the finished solution is right first time. To facilitate the process (for both the designers and end users of the room), Harp generates real-look 3D renderings of the room to show how the needs of operations staff, managers and customers will be met, and how the elements will look together. Human ergonomics are the first considerations - the size of character a person can read at what distance, how many people form key viewing groups and where they can be seated.

While much technology is available to choose from, some hi-tech hardware is capable of more than is actually required, and using it can result in costly over-engineering. For example, although the brightness, clarity and colour uniformity of screen images are important, it is pointless to try and show high resolution pictures which the eye cannot resolve from a distance and large groups cannot get close enough to see.

The physical environment has to be carefully controlled. Automatic daylight following lighting, audio levels, ventilation, air ionisation and humidity all need to be considered to keep staff comfortable and productive.

Harp design process:

- Define exact requirements
- Draft a proposal
- Fill in design detail
- Test and prove the design
- Build the system
- Customise the solution.





## On View

Harp deliver visual solutions that become tools for advertisers to reach the public through imagery of their client's products.

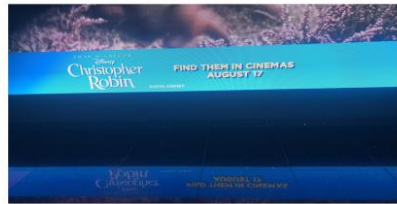
Which technology is needed? Harp can recommend and deploy solutions be it LCD, OLED or LED. A knowledge pool within Harp can recommend which resolution, brightness, colour temperature, deployment and return on investment can be achieved. All of which can be controlled from cloud-based systems delivering content and reporting proof of play statistics.

## National Coverage

Video walls can be deployed internally in buildings or using high brightness displays in direct sunlight next to roads. When hooked up to nationwide network campaigns new imagery can be deployed in seconds keeping them current and effective. These solutions can be visually monitored 24/7 to ensure the correct files are being shown at the correct times.



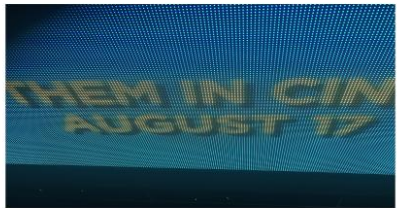
# Deployment - Which Size LED



3mm LED Wall viewed from 6m



3mm LED Wall viewed from 3m



3mm LED Wall viewed from 1m

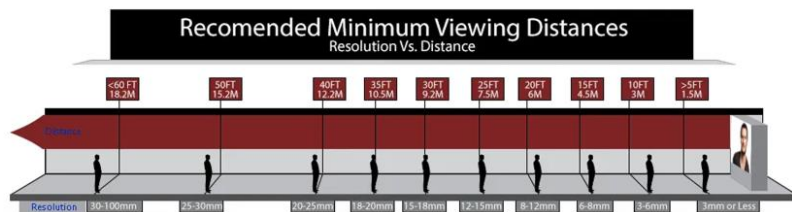


3mm LED Wall viewed from 0.5m

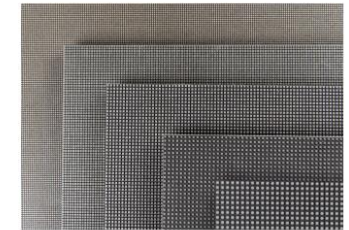
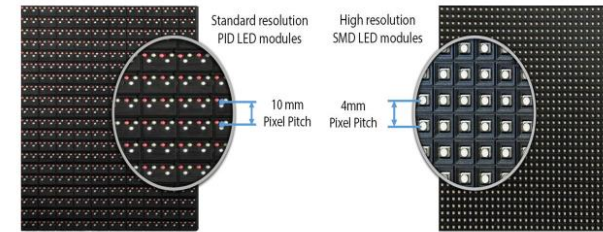
## LED Viewing Distance

LED viewing distances by rule of thumb is generally accepted to be 1mm of pixel pitch for every meter distance from the screen.

Viewing distance matters not only for viewing quality but for project planning and cost. For example, a 1.5mm fine-pitch LED display looks amazing, but if day-to-day viewers, on average, will be at least 2 meters away, then there is no reason to invest in a premium-priced installation.



# No Bezel



## LED Pixel Pitch

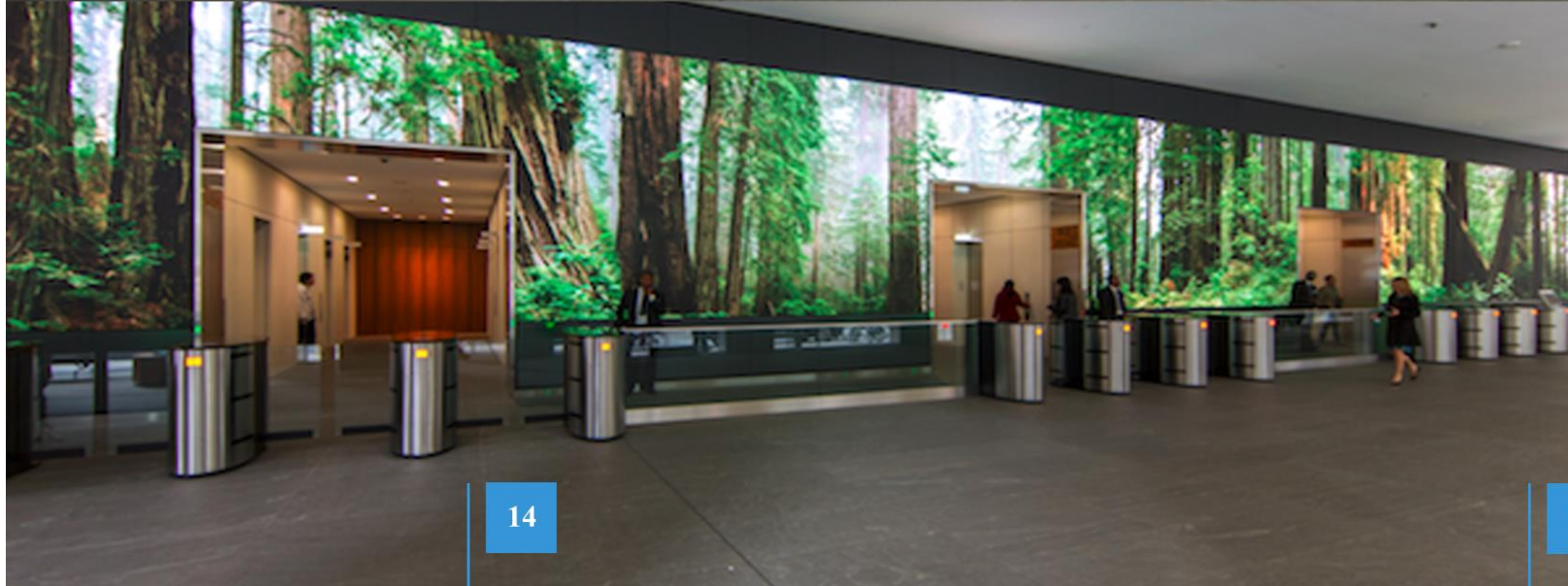
The LED pixel pitch is the distance between each LED pixel. If a screen has a pixel pitch of 10mm then the centre of the LED is a distance of 10mm both horizontally and vertically from the next pixels.

## Front and Rear Servicing

Servicing of LED Displays can be maintained from the front side and the rear side of cabinet, and usually used for locations which there is no maintenance room at the back of the LED screen. Compared with traditional fixed LED installation display, frontal service LED Screen can realize that the panel can be taken out from the front side and no need to worry about maintenance room where there is not enough room behind the LED display.







**Full service offering...**

In a command room or similar environment, continuous availability is the measure of the installed system's success. Harp offers a full support programme to ensure that mission-critical centres remain fully operational, with engineers located both in the North and South of the UK to provide timely support as required.

- Next-day on-site callout
- All spare parts (down to board level) always in stock
- Full module replacement
- Swappable units for items needing off-site repair
- Fully trained engineers
- Documentation for all system parts
- 24-hour telephone support

Customers already using Harp Visual Communication Solutions to meet their display objectives include:

- DOCKLANDS LIGHT RAILWAY**
- O2 ARENA**
- PALLADIUM**
- GLASGOW UNDERGROUND**
- LONDON UNDERGROUND**
- REUTERS**
- HMRC**
- MERSEYTRAVEL**
- B & Q**
- NETWORK RAIL**
- UNILEVER**
- BP**
- BT**