

**STUDIOBOT XL**  
BROADCAST CAMERA ROBOT

**MRMC**  
BROADCAST

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# A Complete Guide to Camera Robotics

# Bringing Over 50 Years of Motion Control Excellence to Broadcast

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Camera robotics is an established technology in the world of broadcast, yet MRMC offers a very key difference from other solutions available.

With over 50 year's working in leading-class motion control and studio robotics, no other supplier in the industry can deliver such high-quality movement to the broadcast market.

This philosophy extends across our whole range, and we offer a variety of control options depending on whether you wish to use studio automation to control the broadcast or manual operators.

Our range of broadcast robotic heads, rails, and studio arms allow creative and engineering teams to add something extra to the way that their content is captured, whether that be exceptional speed, precise, repeatable moves, smooth and natural capture, or remote control and operation.



AV AWARDS 2021  
FRIDAY 5 NOVEMBER  
**WINNER**



NABSHOW  
**PRODUCT**  
of the **YEAR** 2021  
WINNER

SVG  
SPORTS VIDEO GROUP  
EUROPE  
SPORTSTV AWARD  
WINNER 2020





# Your Workflow. Your Choice.

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Studios can use any camera they like with one of MRMC's heads or they can use third-party PTZ cameras — or even a combination of both.

This allows for a perfect marriage of the more functional look normally achieved from an integrated PTZ camera with the creative possibilities that a large sensor camera with a shallow depth of field can offer.

Control is simple as MRMC software and control panels are also able to control most third-party cameras and heads.

Open integration also means that the studio can make the most of its existing production cameras and graphics systems, including VR, XR, and AR-based productions.



## **AUTOMATION**

Maintain maximum creative possibilities with repeatable camera angles, extended motion sequences, that work shot, after shot, after shot.

## **HIGH PAYLOAD**

Heavy-duty robotic heads that can take a full-scale studio camera and teleprompter.

## **SMALL FOOTPRINT**

Perfect for getting smooth, precise shots without compromising picture quality, with options that offer exceptional speed and performance.

# Understanding the Benefits of Camera Robotics

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Building camera robotics into your production requires a shift in thinking about one-to-one camera operation, to one-to-many.

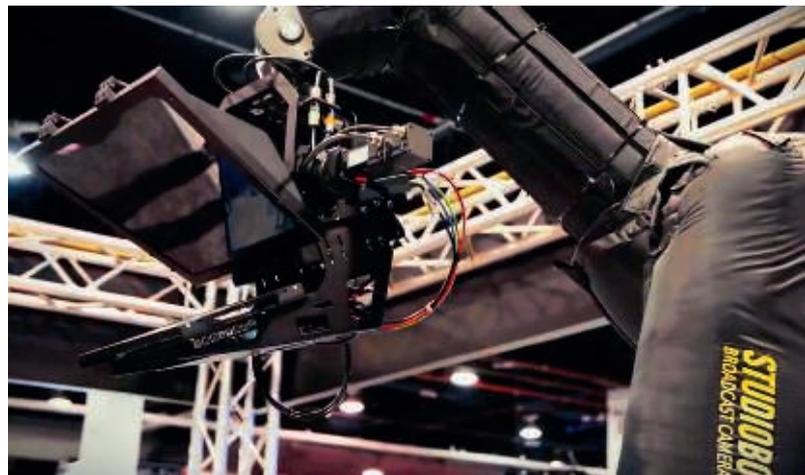
Driven by smart programming, all the operator has to do is select a shot or start a sequence with a single touch. It could seem that the work is “done for them”, but no amount of automated smart camera moves can replace the creativity that the crew injects when it comes to designing the shot.

In fact, streaming workflows with robotics allow camera operators and production teams to think more creatively about the camera angles and variety of shots they could capture.

The ability to provide complex multi-axis camera motion, repeatable time and time again with complete accuracy, is central to MRMC’s products and services.

While MRMC offers high-end studio robotics for tier-one sports and news production, many of the ‘every-day’ pan/tilt heads are used to support ‘low-budget’ TV programming, to help them achieve just the opposite look and feel within their productions.

**Often cost-effective when compared to traditional studio camera systems, combining the right range of robotics kit means that shows can be set up in advance with minimal repositioning.**



**MRMC robotic feature high-resolution encoder feedback to create an impressive range of repeatable motion.**

## WHY YOU SHOULD INVEST IN A ROBOTIC ARM

The key factor is operating costs versus purchase costs. The camera jib will be cheaper to purchase, however there will usually be more expensive to run.

If you’re only running a show once or twice a week and want some interesting movement, a camera jib at £20,000 may be a good investment.

The cost of the operator for the jib would probably only be £100-£200 depending on the length of the shift required.

If you’re running more than 1 show a day, then a robotic arm allows you to streamline your operator costs while benefiting from improvements of repeatability and accuracy.

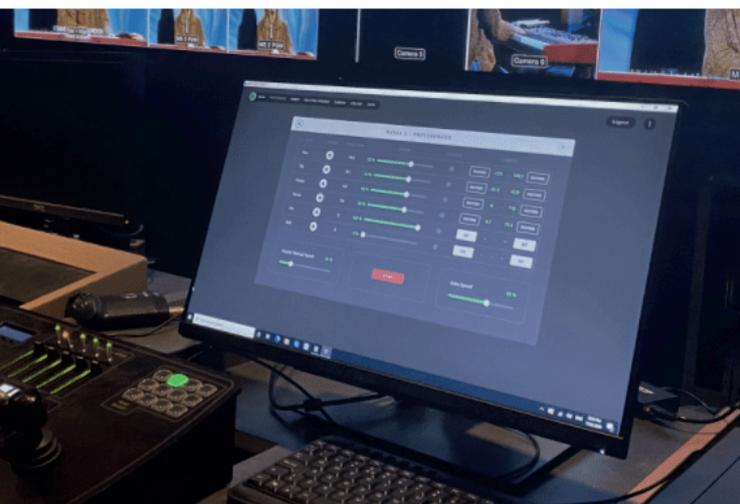


# Empower Your Operators

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One of the innovations in the broadcast space that remote camera robotics and automation allows you to tap into is the growth in software that lets users genuinely multitask.

High-end broadcast shows that need to be produced by entire galleys of different people, but are constrained by resources or budget, can be switched by a single operator.



*MHC software in use at Grace Church house of worship, US*

MRMC's Multi-Head Controller is a powerful software interface that enables just that sort of workflow.

The software platform has been designed for touchscreens and complete user simplicity and allows a single person to control a multitude of MRMC robotic heads at the touch of a button from a single workstation.

What's more, the User Interface is extremely flexible and can be tailored to a wide range of end requirements. A variety of different skins are available for a multitude of different events, allowing you and your crew to delineate precisely how you cover all the different aspects of your video outreach.

**The single-user MHC and joystick controller setup used by our camera operators is incredibly user-friendly and works well with our dual remote cameras. It has given the operators improved control over their live moves, and produces smooth camera movements.**

# Automation Lets Teams Do More

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Many of our customers are seeking to become more efficient while being able to create great content.

Automating more of your camera movement allows users to move on considerably from locked off-camera positions and add unique motion to their capture.



SPORTS STUDIOS



NEWS



WEATHER



POP UP STUDIOS



SMALL SCALE



LECTURES



PUBLIC SPEAKING

## Increase Creativity and Production Values

The ability to add new angles and subtle movement to your shots will increase production value and provide endless creative possibilities.

## Talent Can Move Freely

AI will manage all the tracking and follow your presenter or guests without you having to worry about them stepping out of frame.

## Replicate Natural Camera Movement

Using limb and face detection, the system tracks subject movements and moves the camera autonomously in real-time.

## Camera-Agnostic

The system is available for multiple broadcast and capture scenarios with three different solutions available for different applications: Pro, Studio & Broadcast.



# Centralise Control Of Your Cameras

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One of the problems successful productions commonly face is doing more with the same number of people. Resources, team, budget. These are all things that can rapidly seem in limited supply.

One of the best-established ways of making sure your resources stretch without compromising quality is to automate your camera systems with the addition of robotic heads.

MRMC's robotic pan-tilt head range is an excellent choice for all sorts of applications.

With a small footprint, the motorized pan/tilt heads provide smooth, precise shots without compromising picture quality. It is also unobtrusive, ensuring quiet, fluid pan/tilt movements every time.

MRMC products enable productions to grow, without the need for vast amounts of extra resource. For example, Grace Church in Maryland Heights, MO, recently introduced two of MRMC's AFC 100 heads into its 8-camera set-up as upgrades for an older PTZ system.

"We've found that having one operator controlling the two AFC-100 heads with both live motion and pre-set moves was the best fit for our shooting style. It has given the operator improved control over live moves and produces smooth camera movements."

Ron Krause, Technical Director at Grace Church.



## AFC Robotic Head

**AFC 180 Max Speed** | **Camera Payload**  
180° /s | 15 Kg



## PTA-2 Robotic Arm

**Absolute Pan** | **Payload**  
720 (subject to cabling) | 35Kg (when used with side arm)

# Add Movement To Add Interest

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Adding quiet and smooth movement to your productions means broadcast studios and live events such as concerts, festivals and houses of worship can increase the value of their output with minimal effort.

Take the movement a step further and seamlessly integrate control with automation, or use IP connectivity to providing accurate positional data, ideal as part of a virtual set.

Modular track options designed for studio, event and mixed production environments are an ideal solution for customers looking for either fixed or portable setups, with variety of mounting options, such as the floor, ceiling or wall.

Produce the highest level of movement possible with robotic camera arms that provide master camera angles and extended motion sequences, that work for every shot time after time.



# Integration into VR and AR Productions

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All our systems have encoding built in to provide positional data, or work with Ncam, Stype, and Mo-sys for XR environments.

This means that our robotics fit seamlessly into green screen and virtual set environments.

Installed in the main studio, the StudioBot can replace a traditional extending crane system, offering a more compact footprint, and the ability to capture unrivalled motion, for natural, smooth movement that can be seamlessly repeated for each broadcast.



With a choice of control options and level of autonomy, the system is operator-driven for the flagship live broadcast, with automation used for the daytime shows.

The StudioBot XL boasts impressive specs, with an extended arm height of 2.8m and a reach of 1.76m. Its 9-axis system features a large operating envelope that offers superior visual creativity over traditional dolly systems, and even offers a high payload capacity with the ability to carry full-size teleprompters.

The StudioBot system also features a multitude of software functionalities, driven by a graphical user interface (GUI) for creating and editing shots, moves and playlists. This enables the team to make small adjustments between daytime and live evening broadcasts.

In addition to offering all the benefits of streamlining the production, the system integrates with graphics systems. When combined with its creative potential, the built-in ability for the StudioBot to provide positional data takes this system to an entirely different level.



# **MRMC**

## **BROADCAST**

# Contact the MRMC Broadcast Team to Design Your Solution

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