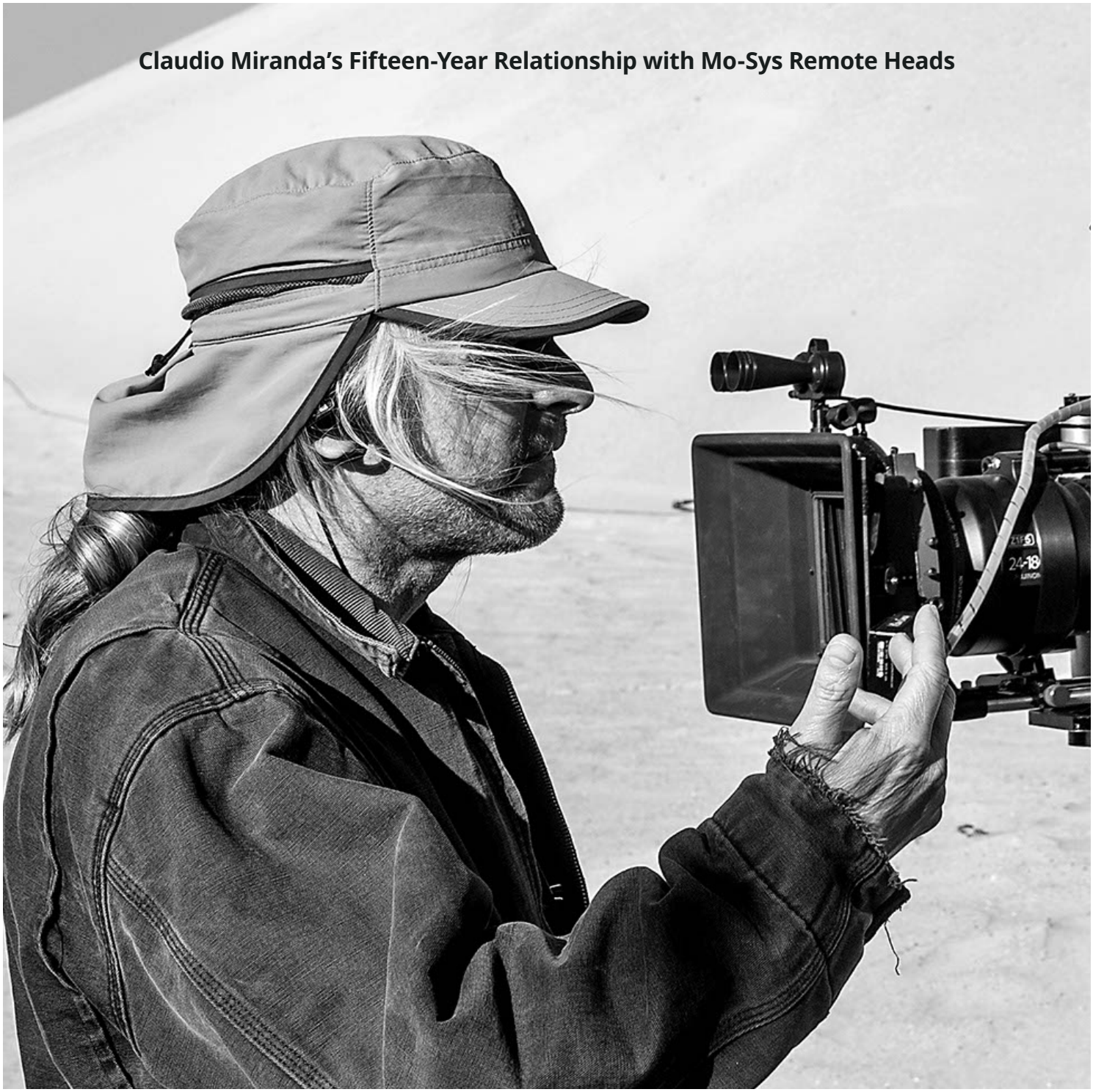
mo-sys *spotlight on*

Claudio Miranda "My Mo-Sys"

Claudio Miranda's Fifteen-Year Relationship with Mo-Sys Remote Heads



“My Mo-Sys”

Claudio Miranda’s Fifteen-Year Relationship with Mo-Sys Remote Heads

Claudio Miranda, with his Oscar for *Best Achievement in Cinematography for Life of Pi (2012),* at the 2013 Academy Awards

It’s a cloudy, muggy morning at the height of a London heatwave as Claudio Miranda, Academy Award-winning Cinematographer, stops by the London office to check out the latest Mo-Sys remote head technology.

“Happy Fifteenth Anniversary!” Hot on the heels of the ‘F1: The Movie’ he sweeps into the Greenwich building, his long, trademark, platinum blonde locks trailing after him as he enters with an enthusiasm that disregards the hour, the climate or even the lack of caffeine. Claudio has a long history with Mo-Sys remote heads, using them on every one of his shoots, and he is eager to see the latest innovations.

“I’m looking forward to trying the L20 and the G30. I’ve been looking at the G30 for a while. With some cranes, because of where the cables contract, there’s always a little hiccup, and they give you a little nudge, so you do need a bit of stabilisation to kick out any little bumps that a non-stabilised head might pick up.”

As he puts the G30 through its paces with Mark Seaton, Mo-Sys's Senior System Engineer, we take a moment to talk about his fifteen-year relationship with the company.

So, when did this love affair with Mo-Sys remote heads kick off? Well, it all started back on his first collaboration with Brad Pitt, one that would net Claudio his first Oscar, 'The Curious Case of Benjamin Button', directed by David Fincher.

"I was working on 'Button', and we wanted to have a small head that we could maintain ourselves, without having to have someone with it the whole time. We didn't want something really big, with a bunch of extra arms on it. We wanted something very stable and very reliable."

As it turns out, for Claudio, agility, and being able to react to events on set is an essential consideration when choosing what remote heads to use. He values his Mo-Sys for it's strength, reliability, precision and ease of use.

"We just wanted an easy-to-use head that we could have on set, that my own guys could tech without a whole new bunch of complications. When I was looking at different heads, 'The Mo-Sys' was the easiest one to use."

'The Mo-Sys', 'My Mo-Sys', so ubiquitous are Mo-Sys remote heads on a Claudio Miranda shoot, that he and his team don't even need to refer to the equipment by product name.

"I had rented it a bunch of times through other services, and having looked at all the other heads out there, I chose 'the one' and fifteen years later it's still running."

Very Stable and Very Reliable

Claudio Miranda with Mark Seaton at Mo-Sys HQ, looking at the G30

Camera First

On 'Button', Claudio had to light and shoot whilst being mindful of all the VFX that would be required to have Pitt's character aging in reverse, but whether it's capturing the nuances of a performance to be augmented in post, or grand scale spectacle, Claudio's career has been synonymous with ground-breaking digital effects. So how does he approach shooting for post-heavy productions?

"I treat everything as if I'm shooting for real, so I don't really bend too much for VFX, because we want it to feel as if we were shooting for real, like if I'm hand-held, I'll shoot hand-held. I don't go into virtual mode too much."

Claudio is not against VFX – far from it. A quick scan of his resumé will show that he is well accustomed to delivering stunning visuals that have been heavily augmented with digital assets, from Tron: Legacy to Oblivion and Life of Pi (for which he also won the Academy Award for Best Cinematography).

"There's real, there's volume then there's greenscreen, that's the order," Claudio laughs, as he gesticulates, indicating the hierarchy of the shooting methods with a clear preference for traditional live-action. "I try to get it real as much as possible. I think there's a kineticness that people really do feel, when it hasn't been watered down by any sort of artificial environment."

Claudio Miranda on "Life of Pi"

Claudio Miranda and Joseph Kosinski on “Top Gun: Maverick”

Kinetic Visuals

Things certainly don’t get much more kinetic than Top Gun: Maverick, which earned him his third BAFTA win, but Claudio has once again been pushing boundaries to capture the intensity of Formula 1 racing. So how did Claudio approach shooting the high-octane racing scenes?

“Sometimes, well, with all jobs you potentially need different things. For ‘Formula 1’ they needed a different kind of head – a little tiny one. We even made a special head for F1 with Panavision, and all it did was pan.”

Of course, custom solutions often come with added complexity, so Miranda also needed his trusty go-to, that he could pull out of the proverbial bag to get the amount of coverage necessary to put the audience at the heart of the action.

“For me, sometimes you just need a quick shot and a quick set up, so speed and ease of use are vital keys on movies. We we’re able to do some quick pans with the Mo-Sys head on the track, when I wasn’t physically able to put an operator where I needed [the camera] to be.”

The Need for Speed

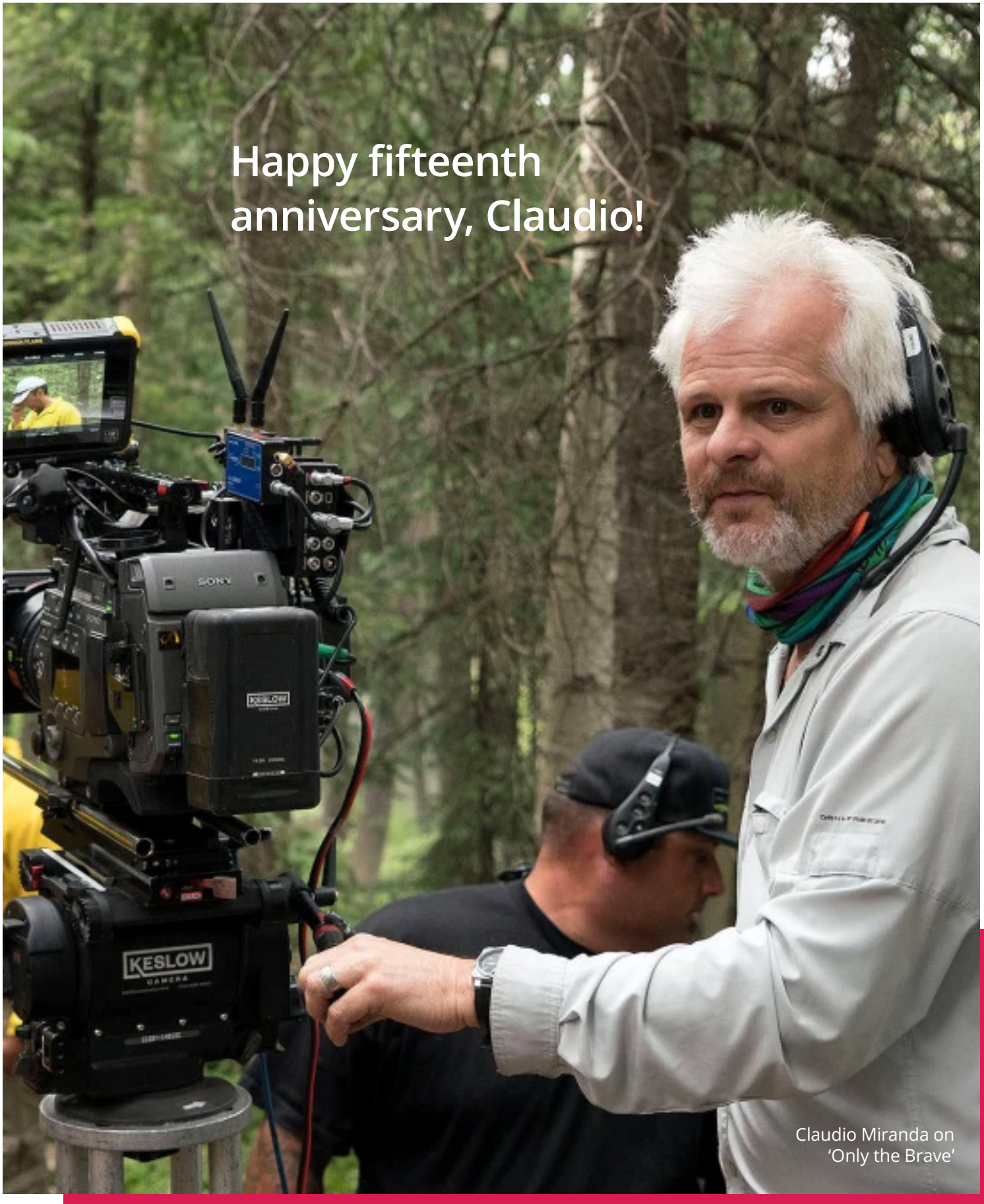
The lights have turned amber, and Claudio's engine is revving, ready to speed off up the track, out the door and on the way to his next appointment.

What has become clear from talking to Claudio is that what he prizes most is the ability to react quickly, using equipment he can keep on hand, with fast setup times and easy-to-use controls.

"I think I've probably used every single head out there," laughs Claudio, "at least every single one worth investigating... When I use those other heads there are always a lot of techs involved. With The Mo-Sys it's just my guys who tech it and it sets up in a couple of minutes – that's why I like My Mo-Sys."

Green light, and he's off! **Happy fifteenth anniversary, Claudio**.

Claudio Miranda on 'F1: The Movie'



Claudio Miranda on
'Only the Brave'

Claudio Miranda DOP|ASC, ACC

Cinematography

Awards: 61 wins & 47 nominations *in total including:*

Academy Awards

Life of Pi (2012)
2013 Winner Oscar - Best Achievement in Cinematography

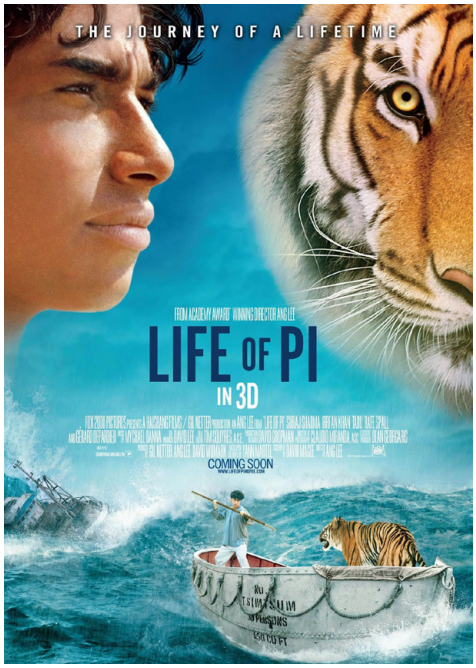
The Curious Case of Benjamin Button (2008)
2009 Nominee Oscar - Best Achievement in Cinematography

BAFTA Awards

Top Gun: Maverick (2022)
2023 Nominee BAFTA Film Award - Best Cinematography

Life of Pi (2012)
2013 Winner BAFTA Film Award - Best Cinematography

The Curious Case of Benjamin Button (2008)
2009 Nominee BAFTA Film Award - Best Cinematography



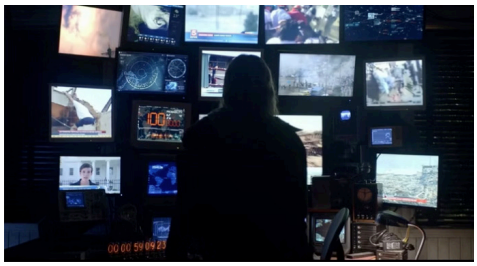
Life of Pi

The Curious Case of Benjamin Button

Top Gun: Maverick

NYAD

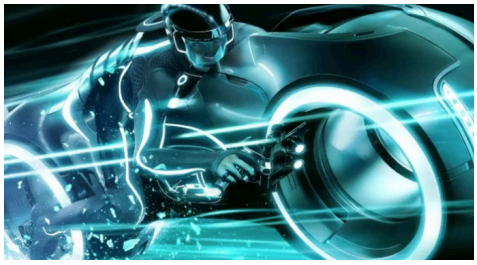
Oblivion



Tomorrowland

Spiderhead

Only the Brave



Tron: Legacy

F1: The Movie

F1: The Movie *(2025)*
Director of Photography

Nyad *(2023)*
Director of Photography

Spiderhead *(2022)*
Director of Photography

Top Gun: Maverick *(2022)*
Director of Photography

Only the Brave *(2017)*
Director of Photography

Tomorrowland: A World Beyond *(2015)*
Cinematographer

Oblivion *(2013)*
Director of Photography: a.s.c.

Life of Pi *(2012)*
Director of Photography

TRON: Legacy *(2010)*
Director of Photography

The Curious Case of Benjamin Button *(2008)*
Director of Photography

Claudio Miranda DOP|ASC, ACC
www.claudiomiranda.com

A SHORT HISTORY OF MO-SYS REMOTE HEADS

Mo-Sys began as a small but highly innovative company, with just three people on the original team, who all played a key role in the design of their first remote head—originally developed as a motion control system for the film industry.

From the outset, Mo-Sys focused on solving a critical problem in motion control: precision. The heads were engineered with specially designed, zero-backlash gears, a crucial feature for repeatable, frame-accurate camera movements. At the time, long before the dominance of modern computer-generated visual effects, filmmakers relied on mechanical precision to composite multiple elements seamlessly. Any slight gear play would cause misalignment between shots, making compositing impossible. Mo-Sys heads eliminated this issue, enabling exact repeatability and smooth performance.

This accuracy and reliability quickly attracted attention in Hollywood. Cinematographer Claudio Miranda frequently rented Mo-Sys heads through Cranium, a rental house run by Nico Balley. Recognising the potential, Nico approached Mo-Sys directly, eager to offer the system more broadly.

Mo-Sys remote heads were soon used in major productions such as Harry Potter, where precise camera repeats were needed to combine separately filmed elements into a single, seamless scene. The systems proved not only accurate and powerful, but also remarkably user-friendly—a rare combination in high-end motion control.

This balance of strength, precision, and simplicity became the hallmark of Mo-Sys engineering. Crucially, that simplicity is not a reduction in features, but the result of thoughtful innovation—designing advanced systems that are intuitive to operate without compromising on capability.

By making complexity accessible, Mo-Sys earned its place as a trusted name in motion control and camera robotics throughout the global film industry.

mo-sys

Virtual Production Solutions
Camera Tracking and Robotics
Virtual Production Academy

Specialists in Virtual Production Solutions, VP Academy Training, Camera Tracking, Robotics and Remote Production Systems, Mo-Sys has over 25 years of industry experience designing, building and installing full turnkey and bespoke studio solutions.

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