

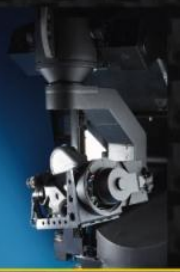
# Milo Motion Control Rig



Extensive safety features have been built into the rig and software



The unique Axis of the outer arm allows the camera to reach otherwise impossible positions and is fitted with a precision ground gear that allows fast and vibration free movement of the head



Our Guinness Pan Tilt Roll Head can take a wide variety of Film, HD and Video cameras up to 35kgs. The construction ensures outstanding speed and precision as compared to other heads of this capacity. It is referred to as a reversible head meaning the camera can look through the roll ring when the shot requires very accurate or rigid movement, using macro or long focal length lenses, and away from the roll ring when the camera requires a greater degree of access or greater freedom of lighting



A standard Milo has 12 Axes of motion expandable to 32

The fabrications of Milo are built using a highly specified type of lightweight aluminum. The construction has undergone Finite Element Analysis (FEA) to ensure complete rigidity. All mechanical parts are anti-corrosive and able to withstand variable climate conditions



The high strength precision ground Ballscrews give the Lift and Extend axes precision and velocity to exceed live action speeds

Our high strength fast rare-earth magnet servo motors are smaller and quieter than traditional motors. They are all fitted with optical encoders to ensure loss of position is never a problem



The Milo can be transported whole or in easy to dismantle sections that can be packed in flight-cases. It takes about 45-60 minutes to reassemble



The precision linear re-circulating bearings used on the Track, Rotate and Extend axes allow smooth, fast and very precise motion



There are three options for mounting: the v channel mechanism which runs along industry standard rail whilst the precision bearing blocks run on our own design of precision rail giving the greatest rigidity and smoothness. Floor jacks and ingenious software allow the Milo to be used without rails in confined spaces even with complex moves. Robust floor wheels and steering bars allow easy positioning within a studio

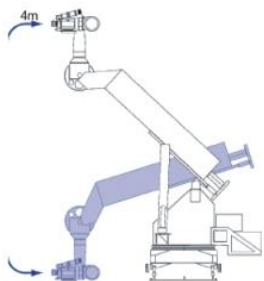


The Rotate, Pan and Roll axes use slip-rings for all the electrical ways to allow freedom of movement and unlimited rotation



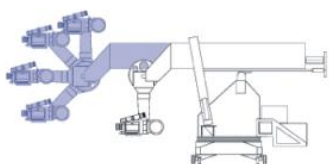
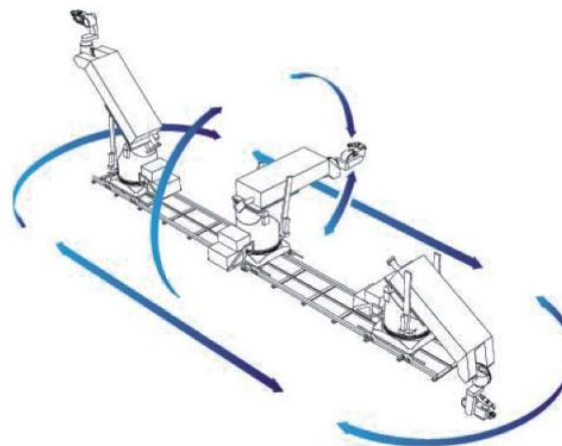


# The Academy Award Winning Motion Control System



## PERFORMANCE

Axis Name	Range of Travel	Maximum Speeds
Track	as required	2 metres per second
Rotate	unlimited	38 degrees per second
Lift	+/- 45 degrees	24 degrees per second
Arm Extend	1 metre	38 cm per second
Outer Arm	225 degrees	40 degrees per second
Pan	Unlimited	120 degrees per second
Tilt	290 degrees	120 degrees per second
Roll	unlimited	120 degrees per second



## WEIGHTS

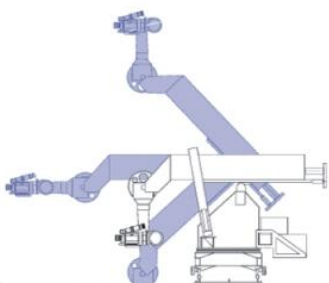
Base	166 kg / 365 lbs
Turret	160 kg / 352 lbs
Main Arm	130 kg / 286 lbs
Head with Outer Arm	63 kg / 139 lbs
Extend Ballscrew	28 kg / 62 lbs
Lift Ballscrews	39 kg / 86 lbs
Power Supply and Driver Unit	124 kg / 273 lbs
<b>Optional</b> Long Arm (with counter weights)	452 kg / 995 lbs

## Standard Milo Arm

Lift height at lens 4m/-0.75 (below ground level)

## Milo Long arm

Lift height at lens 6m/-2.75 (below ground level)



## OPTIONAL EQUIPMENT INCLUDES

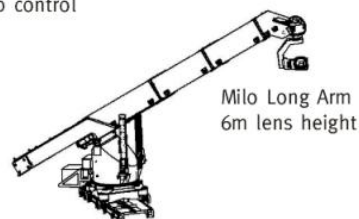
- High Precision or Standard Track – inc ramp up rails.
- Grip Sticks – mimic 'push' system to obtain a repeatable hand held camera feel.
- Range of model mover systems - to control auxiliary motors on props and lighting.
- Milo Long arm - in 4 sections for easy transportation & versatility.
- Hand Wheels - Remote hand wheels for recording the movement of individual axes.
- CGI, 3D & axes input and output, for Pre-visualisation to post production and other CG applications.
- VTR control - to control the record functions of a VTR accurately.
- MC Tools - translation software for CGI software packages and motion control.
- Unlimited upgrades available for improved performances and functionality.

## CONNECTION

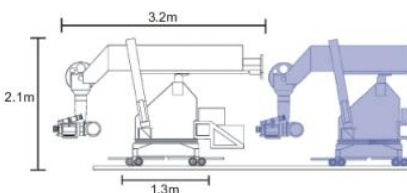
Power Requirements: 110 - 240 Volts, Frequency 50-60 Hz  
Generator: 6.5 KVA ( Milo & 8 Model Movers)

## CAMERA FUNCTIONS

- Camera Motor Control including vari-speed.
- Electronic Film Take-up control
- Zoom/Focus Control
- Iris/FDX Control
- Video Power
- Video Signal
- Sync Connection



Milo Long Arm  
6m lens height



# Technical Specifications



**Mark Roberts Motion Control**

Unit 4, Birches Industrial Estate, Imberhorne Lane, East Grinstead, West Sussex RH19 1XZ  
Tel: 44 (0) 1342 334700 Fax: 44 (0) 1342 334701 Info@mrmoco.com www.mrmoco.com

