

Robotics

Accurate, timely data are guaranteed to those in the Robotics field with the motion capture systems from Motion Analysis.

Whether your concerns involve redundancy control of robot manipulators, coordination control issues for multiple arm motion, or force control, Motion Analysis has a system to help you with your feedforward and feedback control schemes.

Typical System Configuration

ROBOTICS SYSTEM

- **8-12 Eagle-4, Eagle, Hawk or hawk-i cameras**
- **Cortex**
- **Calcium**
- **Talon Plug-ins**
- **Animation Plug-ins**

Choosing the correct camera and number of cameras for your motion capture system is dependent on various factors including:

- Size of capture area
- Size of physical room
- Complexity of movement
- Speed of movement
- Current and future needs

Your Motion Analysis account representative will work with you to determine the best system configuration. Our systems integrate fully with HMD, JACK software, CATIA V5 software, Eye Mark Recorder and other hardwares and softwares. Customers have full access to an SDK in order to develop their own software interfaces.

Recommended Cameras

Eagle-4 Digital Camera

- Resolution of 4 million pixels
- 1-200 Hz selectable frame rates
- Up to 10,000 frames per second at reduced resolution
- High quality 35mm lenses for low optical distortion
- Built-in zoom provides more visual options
- 237 LED's for brighter and better light uniformity
- Software controlled adjustable light output

Eagle Digital Camera

- Resolution of 1.3 million pixels
- 1-500 Hz selectable frame rates
- Up to 2,000 frames per second at reduced resolution
- High quality 35mm lenses for low optical distortion
- Built-in zoom provides more visual options
- 237 LED's for brighter and better light uniformity
- Software controlled electronic shutter

Hawk Digital Camera

- Resolution of .3 million pixels
- 1- 200 Hz selectable frame rates
- C-Mount or Zoom lenses available
- 237 LED's for brighter and better light uniformity
- Software controlled electronic shutter

hawk-i Digital Camera

- Resolution of .3 million pixels
- 1- 200 Hz selectable frame rates
- CS-Mount lens, several sizes available
- 52 LED's for brighter and better light uniformity
- Software controlled electronic shutter

Recommended Software

Cortex - our core motion capture software comprises tracking, editing, scripting and modeling functions in a *single integrated package*.

Calcium- a powerful skeletal creation, setup, and motion solving solution. It is an easy to use tool to solve captured marker data onto a skeleton.

Talon Plug-ins -stream high quality data into Maya, 3ds Max, MotionBuilder, and Softimage XSI.

Animation Plug-ins -post process data into Maya, 3ds Max, MotionBuilder, and Softimage XSI.