

## Application

"Space Race" is a new Multimedia Roller Coaster ride at a popular Theme Park. Guests ride along on the final stage of competition for who has the fastest vehicle for Interplanetary Mass Transit. The Space Plane's Captain pilots through an obstacle course on a fast-paced race through space, avoiding asteroids, satellites and other ships. But there are those who want to see the Interplanetary Mass Transit system fail, and have plotted to destroy all the competitors' vehicles as they approach the finish line. Small video monitors allow the Captain to keep the passengers informed about progress through the race as well as displaying a map of the course with the plotted locations of all competitors.

The ride is technically a roller coaster in a ride building. Surrounding the coaster's track is a series of projection screens on which projected images of satellites, asteroids, and competing space vehicles chase alongside the coaster. The coaster moves through this "video environment," making sudden turns when cut off by a stray satellite or trying to avoid the attacks of the rebel enemy.

Because roller coasters can travel at different speeds, according to the amount of weight in the train, the video, sound and lighting needs to vary its speed to keep in sync with the location of the train on the track.

## Solution

A **Medialon Showmaster iPro** synchronizes the environmental audio, lighting and video equipment from the main equipment room.

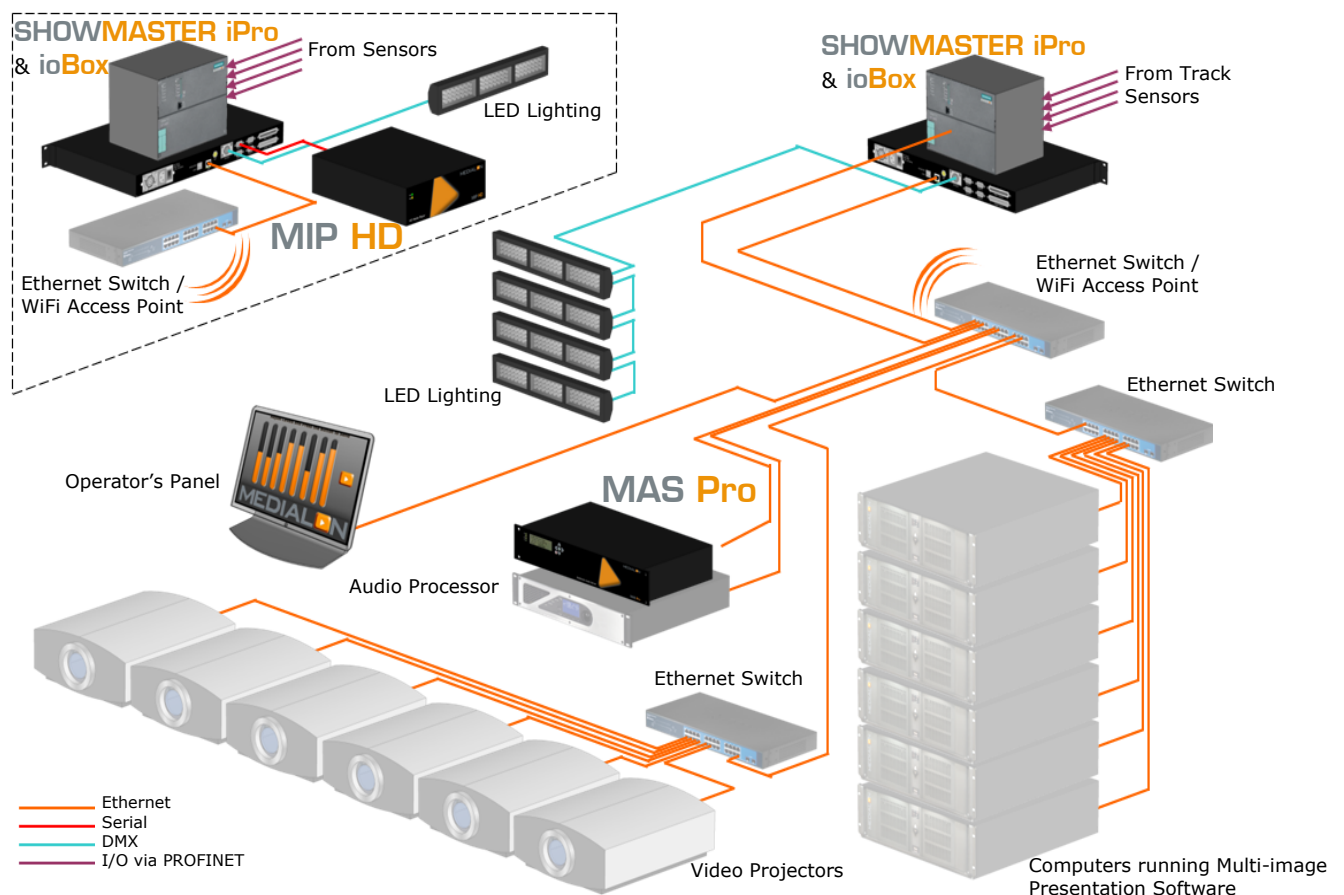
Sensors along the track report back the train's position information to the **Showmaster iPro** to allow it to make calculations of train speed in order to speed up or slow down the video to run in sync with the train.

On board each train are video monitors, LED lighting and speakers, all connected to an on-board **Showmaster iPro**. Sensors on the train pick up location information from the track, allowing the onboard **Showmaster iPro** to synchronize its timeline with the speed of the train as well, so it can trigger Video playback, sound and lighting effects.

A wireless network connects the Trains to the Main Controller so the operator's panel can view status and location information about all trains as well as information about all multimedia components. Log files are automatically generated by the system and e-mailed to management daily. Additionally, a maintenance mode allows park personnel to do system component checks and view the lamp hours of all projectors in the attraction on a single, easy-to-read page.

All safety programming is done in the Siemens PLC, and the information about all processes is shared with the Show Control System.

Approx programming time: 5-7 days.



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