



Swoop-SP 220 Robotic Crane



Swoop 140 with static base

Reach New Heights

The Swoop range of robotic cranes was created to replace traditional manually operated cranes and jibs, which typically require a dedicated operator (sometimes two) and are impossible to integrate into existing robotic camera systems.

The Swoop range launches with two sizes: **Swoop 140** and **Swoop 220**, representing the available boom arm lengths (140 / 220 cm; 4'7" / 7'3"). Both versions combine precision engineering with Shotoku's renowned reliability, offering broadcasters a seamless way to create and repeat sweeping shots with confidence and ease.

Two base options ensure Swoop fits effortlessly into any studio workflow. The **SmartPed robotic base (Swoop SP)** allows the crane to move anywhere within the studio with precision X/Y positioning, remotely controlled. Alternatively, the manual-base Swoop system offers a cost-effective static base solution allowing the crane to be manually repositioned to suit the production's needs, giving operators freedom to tailor the set-up to each show.

Integrated TR-XT Control

Swoop integrates seamlessly with Shotoku's **TR-XT advanced touchscreen control system**, giving operators a complete overview of the crane's position within the studio. The TR-XT's *StudioView* display clearly shows Swoop's location relative to other cameras, while the built-in *SoftRail* interface allows Swoop SP systems to be controlled on tightly defined SoftRail paths. The same SoftRail rules used for SmartPed apply to Swoop SP, ensuring precise, safe, and consistent movement on predefined paths.

The Swoop system uses a specially configured version of Shotoku's **TG-47 robotic pan/tilt head**, a proven workhorse trusted by broadcasters around the world. Mounted on the end of the Swoop's slender yet robust arm, the TG-47 delivers fluid, accurate movement, enabling operators to frame the perfect shot while the crane provides dramatic new camera angles that were previously out of reach.

Safety First – Always

In a busy studio environment, movement safety is paramount. Swoop systems are designed from the ground up with this in mind. Multiple **intelligent proximity detectors** are mounted along the length of the arm and positioned both above and below the TG-47 head. These sensors are individually configurable and continuously monitor the crane's surroundings, creating a protective "safety bubble" that detects obstacles and prevents collisions. When obstacles are detected the system intelligently stops all movement, and applies a servo brake to the arm axes. Only when the object is clear will control return.

APPLICATIONS

NEWS, SPORTS & CURRENT AFFAIRS

SPECIFICATIONS

Payload	10kg*
Max Speed	500mm/s*
Max/Min Lens Height	
Swoop 220	Max 2700mm, Min 100mm
Swoop 140	Max 2030mm, Min 510mm
Collision Avoidance	Time of Flight sensors down the arm, above and below the head.
	21 sensors on Swoop 140
	33 sensors on Swoop 220

* Dependent on arm length and payload configuration