# Espire<sup>®</sup> Elbow Pro

# 🔄 college park







## Welcome to a New Era in Motion

With an emphasis on function and design, College Park's Espire Elbow Pro is easy to use, anatomically correct, and can be programmed to fit one's individual needs. The Espire is available in five models, many colors, two sizes, as well as left and right options. The new Carbon Fiber Finish available enhances the Espire's sleek, modern look. This elbow is compatible with most products currently on the market and has adaptability for future developments. Innovation in the upper-limb prosthetic industry is long overdue. The Espire is here to change that.

# Espire Pro

The Espire Pro is a revolutionary powered elbow that is easy to use and anatomically correct. With a removable 3000 mAh battery and a comfortable center of mass, this elbow functions all day with ease. The electrical lock, free swing options, and accessible power button add ease to patients' everyday tasks. The Pro is compatible with most terminal devices, switches, touch pads, and electrodes on the market. Prosthetists have access to settings for control strategy and device setup via the Espire Hub iPad app.

#### Free Swing

The Espire Pro features electronic, silent free swing. Free swing is engaged automatically when the elbow reaches full extension. This feature can also be activated using alternative inputs such as myo signals or switches. Both configurations are easily set up via the Espire Hub app.

### Weight

Understanding the importance of a lightweight prosthesis, College Park implemented an optimal center of mass. With the most proximal center of mass on the market, the Espire feels lighter to the user.



### Speed

Users have anatomical, controlled movement as the Pro only takes one second to go through full range of motion.



#### Gearbox

The Pro uses a custom 50 W Brushless DC motor, which provides the speed and torque needed to flex and extend the elbow. The strategic placement of the gearbox in the elbow joint provides maximum comfort, balance, and control of the limb. It automatically locks in both directions, achieving reliable confidence with elbow movement and positioning.



#### Power Button

The power button on the Espire Pro and Hybrid, though easily accessible, is recessed to avoid accidental engagement.



### Lift and Hold

Lift and hold with confidence. The Pro's unique gearbox allows for a very powerful elbow capable of performing everyday tasks.





# Espire Hub

College Park's Espire Hub makes setup easier than ever. Using a wireless Bluetooth connection, prosthetists have access to control strategy and device customization. There's no need to send the prosthesis back to the manufacturer to change configuration or terminal devices. College Park will send prosthetists a free iPad upon their first Espire Pro or Hybrid purchase.\* Simply call College Park for the ability to reconfigure the elbow. Easier adjustments ensure patients won't have to go without their prosthesis.







# Design

College Park recruited the team at Altair Engineering to design the Espire's shape and anatomical look. After extensive research, the team created a design that blends technology with humanity to appeal to the wide range of user demographics. The Espire is designed to emulate an anatomical forearm and wrist in every way possible. Because of this, the arm looks natural in a comfortable resting position.



"For over 30 years, College Park has valued the voice of our customers. We are pleased to offer the industry's most diverse options for the Espire Elbow series."

-Aaron Taszreak, Engineering Manager, College Park

# Other Espire Models

#### Espire Hybrid

The Espire Hybrid has the same electronics and battery as the Pro-without the powered elbow joint. This model includes a forearm counterbalance mechanism. This adjustable feature counterbalances the weight of the forearm, wrist, and terminal device, negating the effects of gravity. This allows the patient to position the forearm with minimal effort. The electrical lock can be controlled using myo signals or other traditional inputs. The Hybrid conveniently uses the same inputs as the Pro to control terminal devices. This model blends the high-tech nature of the Pro with the lightweight, economical appeal of the other Espire models.

### Espire Basic

Sometimes, the answer is simple. The Espire Basic is body-powered and features spring assist to enhance ease of movement. Without any electronics or battery, the Basic has a smooth, clean-line shell. It also uses a manual lock to hold the elbow securely in place. This is the most lightweight and economical option of the Espire Elbow series.

#### Espire Classic Plus

The Espire Classic Plus is a mechanical elbow featuring a manual lock and forearm counterbalance mechanism, which allows the patient to position the forearm with minimal effort. Using a plug-in board at the top of the arm, prosthetists can attach various inputs and batteries. These plug-ins are routed through the elbow to the distal end for attachment of a wider range of terminal devices.

### Espire Classic

The Espire Classic is a mechanical elbow that features a forearm counterbalance mechanism, which allows the patient to position the forearm with minimal effort. The reliable manual lock holds the elbow in place. The Classic does not contain any circuitry or electronics, making it an ideal solution for patients seeking a lightweight, sleek option.

# Batteries and Chargers

The Espire's removable 3000 mAh battery can provide the user with a full day of function, even with wrist rotators and multi-articulating hands. Each Espire Pro and Hybrid comes with two easily interchangeable batteries.

The battery compartment and power button are easily accessible for the patient. The power can also be routed to a switch located elsewhere on the prosthesis.

The battery charging dock allows for the user to plug in the battery using only one hand. The charger can quickly refuel the battery in as little as 3.5 hours.



### Introducing TruSignal Technology

The new College Park A/C Myo Electrodes feature TruSignal<sup>™</sup> technology, which can filter the user's myo signals at the source, providing more accuracy. These on-electrode boards allow the prosthetist to place the electrodes wherever they can get the best signal. The TruSignal technology independently filters signals, sending them directly to the elbow through a shielded cable that keeps the signal protected from electronic noise. Fine-tuning can be done through the Espire Hub app.

### COAPT

To offer the most natural movement, the Espire Elbow Pro and Hybrid are compatible with current and future COAPT pattern recognition technology. Based on myoelectric patterns and muscle activity, COAPT patients can have smooth control of their Espire.

#### Wrists and Terminal Devices

The Espire Elbow is compatible with a wide range of wrists and terminal devices, accommodating and exceeding the industry standards. Please visit www.college-park.com to learn about the Hy5 hydraulic hand, wrists, and other terminal device options.

#### More Input Control Solutions

The Espire accommodates almost every input configuration, including D/C cased electrodes, touch pads, linear transducers, switches, and remote power. TMR capabilities are also included and can be controlled with either A/C or D/C electrodes.

#### Axis Shoulder

The AXIS® patented shoulder joint has an electronic lock actuator that can be controlled by the Espire Elbow. This function can be managed using myo sites, physical switches, or touch pads. Unlike any product on the market, the AXIS provides better task control, a natural range of motion, and ease of use for the patient's daily life.



COAPT COMPLETE CONTROL



 $\rm Hy5$  hand distributed in the USA by College Park



### Espire<sup>™</sup> Pro Technical Specifications

#### **WEIGHT LIMIT**

25 lb (11.3 kg) WEIGHT Small | 1075 g Standard | 1095 g MAXIMUM LIFTING FORCE

10 ft-lb (13.6 N-m)

FLEXION ANGLE (PRESET CONTROL)

SPEED (PRESET CONTROL) 135%sec

MAX CABLE LENGTH (A/C ELECTRODE CABLE) 24" (609 mm)

#### MODE OF OPERATION

Continuous

#### CONNECTIONS

Inputs | 12 Outputs | 4

#### **DEVICE OPERATION – INTERNALLY POWERED**

Battery (removable) | Smart Li-Ion 10.8 V, 3,000 mAh, 32 Wh Time to full charge | 3.5 hours

#### WARRANTY

2 years (additional 2 year warranty available for purchase)

#### L CODES L6950/ L6960/ L6970, L6955/ L6965/ L6975, L7180, L7181, L7499

The listing of codes with these products should not be construed as a guarantee for coverage or payment. Ultimate responsibility for the coding of services/products rests with the individual practitioner.

### Order Your Espire Today!

All Espire orders can start with a consultation from College Park's experts. Our technical service team is happy to help you with questions regarding control strategies, configurations, and even billing! Trust College Park to help you confidently give your patients the latest in prosthetic technology.

#### Call us today at 1-800-728-7950 (586-294-7950)





### TECHNOLOGY for the HUMAN RACE

Visit **www.espire-elbow.com** to learn more about the Espire Elbow and follow College Park on social media.

