K4 allows pattern recognition command of Motion Control Utah Arm 3+ elbow flexion/extension with optional pronation/supination of powered wrists and open/close operation of prosthetic hands. Pattern recognition command of multifunction grips is not included.

**PART 1: PHYSICAL CONNECTIONS**

![Connection diagram](connection.png)

**PART 2: SOFTWARE SETTINGS**

**ELBOW**

**MOTION CONTROL UTAH ARM 3+**
- U3 Elbow User Choices
  - Elbow Polarity: A
- Dual-Channel Elbow Settings
  - Quick, Channel A EMG Gain: 5.00, Channel B EMG Gain: 5.00, Channel A Threshold: 5.00, Channel B Threshold: 5.00
  - Elbow Lock/Unlock
    - Lock Override: Off, Flex/Ext After Braking: On, Switch Rate A: 25.00, Switch Rate B: 25.00, Lock Time: 00.10, Switch Window: 00.20
- U3 Elbow Settings
  - Seconds Until Relaxed: 0.05, A + B Freeswing Level: 00.00

**WRISTS**

**OTTOBOCK ELECTRIC WRIST ROTATOR (NO MYOROTRONIC) OR MOTION CONTROL STANDARD WRIST ROTATOR (NO PROCONTROL)**
- WRIST SET UP
  - Electric Wrist Enabled: Yes, Wrist Direction: A
- HAND SET UP
  - Input Type: EMG, Hand Filtering: Quick, Channel: Dual, Control: Differential, Hand Direction: A
- THRESHOLDS/OUTPUTS
  - A: 15, B: 15
  - INPUT GAINS
    - A: 5, B: 5
  - RELAX DELAY
    - Relax Timer: 0.1
- SWITCH CONTROL
  - Switch Rates A: 75, Switch Rates B: 75, Switch Window: 01, Fast Access: On, Co-Contraction: Off, Auto-Switch Back: No

**HANDS**

**I-LIMB, TASKA, VINCNETEVOLUTION3, PSYONIC ABILITY HAND, COVVI HAND**
- Ensure hand settings are the factory defaults.

**OTTOBOCK SENSORHAND, MYOHAND VARIPLUS, SYSTEM ELECTRIC GREIFER, OR SYSTEM ELECTRIC HAND**
- Ensure ‘control mode’/‘program’ 1

**OTTOBOCK BEBIONIC**
- Control Strategy: Dual Site
- Open / Close Strategy: Electrodes: A,B
- Control Options: Electrodes
- Control Response: Proportional
- In ELECTRODE SCREEN:
  - Channel 1 “Blue” threshold: 10%
  - Channel 1 “Red” threshold: 90%
  - Channel 2 “Blue” threshold: 10%
  - Channel 2 “Red” threshold: 90%
- Remember to press “Send to Hand” after making any changes

**MOTION CONTROL PROHAND, PROETD/ETD2**
- HAND SET UP
  - Input Type: EMG
  - Hand Filtering: Quick
  - Channel: Dual
  - Control: Differential
  - Hand Direction: A
- Thresholds/Outputs
  - A: 15
  - B: 15
- Input Gains
  - A: 5
  - B: 5