p2

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Person {

Age: None

Gender: None

Education: None

Injury\_level: C4

ASIA\_score: D

Time\_after\_injury: 9

Training\_sessions: 4

Donning:

{'session': 1, 'all\_green': 9, 'final\_thresh': 10, 'final\_FES': 18, 'total': 37}

{'session': 2, 'all\_green': 10, 'final\_thresh': 11, 'final\_FES': 14, 'total': 35}

{'session': 3, 'all\_green': 14, 'final\_thresh': 23, 'final\_FES': 3, 'total': 40}

{'session': 4, 'all\_green': 11, 'final\_thresh': 11, 'final\_FES': 19, 'total': 41}

{'session': 5, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 36}

{'session': 6, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 39}

{'session': 7, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 23}

{'session': 8, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 42}

{'session': 9, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 14}

{'session': 10, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 14}

{'session': 11, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 12}

{'session': 12, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 21}

{'session': 13, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 23}

{'session': 14, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 14}

NASA\_TLX:

{'session': 1, 'mental\_demand': 15, 'physical\_demand': 15, 'temporal\_demand': 11, 'performance': 2, 'effort': 17, 'frustration': 4, 'total': 64}

{'session': 2, 'mental\_demand': 16, 'physical\_demand': 16, 'temporal\_demand': 12, 'performance': 1, 'effort': 16, 'frustration': 4, 'total': 65}

{'session': 3, 'mental\_demand': 18, 'physical\_demand': 18, 'temporal\_demand': 17, 'performance': 6, 'effort': 16, 'frustration': 2, 'total': 77}

{'session': 4, 'mental\_demand': 17, 'physical\_demand': 16, 'temporal\_demand': 17, 'performance': 13, 'effort': 17, 'frustration': 12, 'total': 92}

{'session': 5, 'mental\_demand': 19, 'physical\_demand': 16, 'temporal\_demand': 11, 'performance': 1, 'effort': 17, 'frustration': 4, 'total': 68}

{'session': 6, 'mental\_demand': 19, 'physical\_demand': 18, 'temporal\_demand': 12, 'performance': 1, 'effort': 18, 'frustration': 5, 'total': 73}

{'session': 7, 'mental\_demand': 18, 'physical\_demand': 17, 'temporal\_demand': 5, 'performance': 1, 'effort': 17, 'frustration': 1, 'total': 59}

{'session': 8, 'mental\_demand': 18, 'physical\_demand': 18, 'temporal\_demand': 3, 'performance': 1, 'effort': 18, 'frustration': 1, 'total': 59}

{'session': 9, 'mental\_demand': 19, 'physical\_demand': 17, 'temporal\_demand': 2, 'performance': 0, 'effort': 18, 'frustration': 1, 'total': 57}

{'session': 10, 'mental\_demand': 18, 'physical\_demand': 18, 'temporal\_demand': 1, 'performance': 2, 'effort': 17, 'frustration': 1, 'total': 57}

{'session': 11, 'mental\_demand': 19, 'physical\_demand': 18, 'temporal\_demand': 1, 'performance': 1, 'effort': 18, 'frustration': 1, 'total': 58}

{'session': 12, 'mental\_demand': 19, 'physical\_demand': 17, 'temporal\_demand': 1, 'performance': 3, 'effort': 18, 'frustration': 1, 'total': 59}

{'session': 13, 'mental\_demand': 18, 'physical\_demand': 13, 'temporal\_demand': 4, 'performance': 1, 'effort': 18, 'frustration': 1, 'total': 55}

{'session': 14, 'mental\_demand': 17, 'physical\_demand': 18, 'temporal\_demand': 1, 'performance': 1, 'effort': 18, 'frustration': 1, 'total': 56}

SAndS:

{'session': 1, 'stress': nan, 'satisfaction': nan}

{'session': 2, 'stress': 2, 'satisfaction': 8}

{'session': 3, 'stress': 2, 'satisfaction': 7}

{'session': 4, 'stress': 0, 'satisfaction': 4}

{'session': 5, 'stress': 4, 'satisfaction': 9}

{'session': 6, 'stress': 3, 'satisfaction': 9}

{'session': 7, 'stress': 0, 'satisfaction': 9}

{'session': 8, 'stress': 0, 'satisfaction': 8}

{'session': 9, 'stress': 0, 'satisfaction': 10}

{'session': 10, 'stress': 0, 'satisfaction': 8}

{'session': 11, 'stress': 0, 'satisfaction': 9}

{'session': 12, 'stress': 0, 'satisfaction': 8}

{'session': 13, 'stress': 0, 'satisfaction': 9}

{'session': 14, 'stress': 0, 'satisfaction': 10}

BCIFES\_Trials:

{'session': 1, 'TP': 8, 'FP': 0, 'TN': 2}

{'session': 2, 'TP': 16, 'FP': 0, 'TN': 4}

{'session': 3, 'TP': 8, 'FP': 0, 'TN': 2}

{'session': 4, 'TP': nan, 'FP': nan, 'TN': nan}

{'session': 5, 'TP': 9, 'FP': 0, 'TN': 1}

{'session': 6, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 7, 'TP': 17, 'FP': 1, 'TN': 2}

{'session': 8, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 9, 'TP': 28, 'FP': 1, 'TN': 1}

{'session': 10, 'TP': 16, 'FP': 2, 'TN': 2}

{'session': 11, 'TP': 17, 'FP': 3, 'TN': 0}

{'session': 12, 'TP': 19, 'FP': 1, 'TN': 0}

{'session': 13, 'TP': 9, 'FP': 0, 'TN': 1}

{'session': 14, 'TP': 17, 'FP': 1, 'TN': 2}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': '2-', 'R': array([4], dtype=uint8)}

{'muscle': 'FCR', 'L': array([0], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'ECRL', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FDP', 'L': array([1], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'EDC', 'L': array([0], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FPL', 'L': array([0], dtype=uint8), 'R': '4+'}

{'muscle': 'EPL', 'L': '1+', 'R': array([4], dtype=uint8)}

{'muscle': 'ADM', 'L': '2-', 'R': '4-'}

MMT\_final:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': '2-', 'R': array([5], dtype=uint8)}

{'muscle': 'FCR', 'L': array([1], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'ECRL', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FDP', 'L': '3-', 'R': array([4], dtype=uint8)}

{'muscle': 'EDC', 'L': '2+', 'R': array([4], dtype=uint8)}

{'muscle': 'FPL', 'L': array([0], dtype=uint8), 'R': '4+'}

{'muscle': 'EPL', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'ADM', 'L': '2+', 'R': array([4], dtype=uint8)}

PIADS:

{'confident': 3, 'secure': 5, 'fit\_with\_routine': 5, 'fit\_in\_environments': 5, 'comfortable': 5}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [nan]}

{'session': 2, 'threshold': [1.3, 2.0]}

{'session': 3, 'threshold': [2.241, 1.904]}

{'session': 4, 'threshold': [19.1, 1.94, 8.0, 5.0, nan]}

{'session': 5, 'threshold': [6, 3, 6]}

{'session': 6, 'threshold': [9.6]}

{'session': 7, 'threshold': [7, 4]}

{'session': 8, 'threshold': [3.168]}

{'session': 9, 'threshold': [2.1]}

{'session': 10, 'threshold': [2.3]}

{'session': 11, 'threshold': [2.34]}

{'session': 12, 'threshold': [1.8]}

{'session': 13, 'threshold': [4.3, 1.5]}

{'session': 14, 'threshold': [4.7, 1.5]}

FES\_parameters:

{'session': 1, 'current': [18, 16], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 2, 'current': [18, 16], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 3, 'current': [18, 16], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 4, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 5, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 6, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 7, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 8, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 9, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 10, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 11, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 12, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 13, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 14, 'current': [18, 14], 'pulse\_width': [200, 200], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [2.2100000000000364]}

{'session': 2, 'times\_for\_activation': [1.9199999999998454]}

{'session': 3, 'times\_for\_activation': [3.8099999999999454]}

{'session': None, 'times\_for\_activation': []}

{'session': 5, 'times\_for\_activation': [1.2800000000002]}

{'session': 6, 'times\_for\_activation': [2.2480000000000473]}

{'session': 7, 'times\_for\_activation': [1.9300000000000637]}

{'session': 8, 'times\_for\_activation': [2.147000000000048]}

{'session': None, 'times\_for\_activation': []}

{'session': 10, 'times\_for\_activation': [4.379000000000019]}

{'session': 11, 'times\_for\_activation': [1.0360000000000582]}

{'session': 12, 'times\_for\_activation': [4.024999999999977]}

{'session': 13, 'times\_for\_activation': [4.7000000000000455]}

{'session': 14, 'times\_for\_activation': [4.2169999999999845]}

Perceived\_usefulness: None

}

p3

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Person {

Age: None

Gender: male

Education: None

Injury\_level: C2

ASIA\_score: C

Time\_after\_injury: 10

Training\_sessions: 4

Donning:

{'session': 1, 'all\_green': 10, 'final\_thresh': 15, 'final\_FES': 33, 'total': 58}

{'session': 2, 'all\_green': 7, 'final\_thresh': 14, 'final\_FES': 29, 'total': 50}

{'session': 3, 'all\_green': 7, 'final\_thresh': 15, 'final\_FES': 11, 'total': 33}

{'session': 4, 'all\_green': 4, 'final\_thresh': 19, 'final\_FES': 3, 'total': 26}

{'session': 5, 'all\_green': 10, 'final\_thresh': 0, 'final\_FES': 12, 'total': 22}

{'session': 6, 'all\_green': 18, 'final\_thresh': 0, 'final\_FES': 10, 'total': 28}

{'session': 7, 'all\_green': 8, 'final\_thresh': 0, 'final\_FES': 10, 'total': 18}

{'session': 8, 'all\_green': nan, 'final\_thresh': nan, 'final\_FES': nan, 'total': 20}

NASA\_TLX:

{'session': 1, 'mental\_demand': nan, 'physical\_demand': nan, 'temporal\_demand': nan, 'performance': nan, 'effort': nan, 'frustration': nan, 'total': nan}

{'session': 2, 'mental\_demand': 5, 'physical\_demand': 10, 'temporal\_demand': 15, 'performance': 10, 'effort': 15, 'frustration': 10, 'total': 65}

{'session': 3, 'mental\_demand': 17, 'physical\_demand': 11, 'temporal\_demand': 10, 'performance': 3, 'effort': 16, 'frustration': 4, 'total': 61}

{'session': 4, 'mental\_demand': 14, 'physical\_demand': 10, 'temporal\_demand': 2, 'performance': 4, 'effort': 13, 'frustration': 2, 'total': 45}

{'session': 5, 'mental\_demand': nan, 'physical\_demand': nan, 'temporal\_demand': nan, 'performance': nan, 'effort': nan, 'frustration': nan, 'total': nan}

{'session': 6, 'mental\_demand': 3, 'physical\_demand': 11, 'temporal\_demand': 5, 'performance': 4, 'effort': 11, 'frustration': 8, 'total': 42}

{'session': 7, 'mental\_demand': 10, 'physical\_demand': 5, 'temporal\_demand': 3, 'performance': 5, 'effort': 15, 'frustration': 7, 'total': 45}

{'session': 8, 'mental\_demand': 15, 'physical\_demand': 11, 'temporal\_demand': 5, 'performance': 8, 'effort': 9, 'frustration': 11, 'total': 59}

SAndS:

{'session': 1, 'stress': nan, 'satisfaction': nan}

{'session': 2, 'stress': nan, 'satisfaction': nan}

{'session': 3, 'stress': nan, 'satisfaction': nan}

{'session': 4, 'stress': nan, 'satisfaction': nan}

{'session': 5, 'stress': 2, 'satisfaction': 8}

{'session': 6, 'stress': 1, 'satisfaction': 8}

{'session': 7, 'stress': 6, 'satisfaction': 7}

{'session': 8, 'stress': 3, 'satisfaction': 7}

BCIFES\_Trials:

{'session': 1, 'TP': nan, 'FP': nan, 'TN': nan}

{'session': 2, 'TP': nan, 'FP': nan, 'TN': nan}

{'session': 3, 'TP': 18, 'FP': 8, 'TN': 4}

{'session': 4, 'TP': 14, 'FP': 0, 'TN': 6}

{'session': 5, 'TP': 18, 'FP': 0, 'TN': 2}

{'session': 6, 'TP': 41, 'FP': 0, 'TN': 8}

{'session': 7, 'TP': 26, 'FP': 1, 'TN': 13}

{'session': 8, 'TP': 20, 'FP': 0, 'TN': 17}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': '2+', 'R': '4+'}

{'muscle': 'triceps', 'L': '2+', 'R': array([4], dtype=uint8)}

{'muscle': 'FCR', 'L': array([2], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'ECRL', 'L': '1+', 'R': '4-'}

{'muscle': 'FDP', 'L': '4-', 'R': array([4], dtype=uint8)}

{'muscle': 'EDC', 'L': '2-', 'R': array([4], dtype=uint8)}

{'muscle': 'FPL', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'EPL', 'L': '1+', 'R': '4-'}

{'muscle': 'ADM', 'L': '1+', 'R': array([0], dtype=uint8)}

MMT\_final:

PIADS:

{'confident': 4, 'secure': 5, 'fit\_with\_routine': 5, 'fit\_in\_environments': 5, 'comfortable': 3}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [0.611, nan]}

{'session': 2, 'threshold': [2]}

{'session': 3, 'threshold': [2]}

{'session': 4, 'threshold': [nan]}

{'session': 5, 'threshold': [1.2]}

{'session': 6, 'threshold': [1.2]}

{'session': 7, 'threshold': [1.4]}

{'session': 8, 'threshold': [1.4, 2.0, 3.0, 4.0]}

FES\_parameters:

{'session': 1, 'current': [20, 20], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 2, 'current': [20, 20], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 3, 'current': [20, 18], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 4, 'current': [20, 18], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 5, 'current': [24, 20], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 3000]}

{'session': 6, 'current': [24, 16], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 3000]}

{'session': 7, 'current': [24, 20], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 3000]}

{'session': 8, 'current': [24, 20], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 3000]}

FES\_times:

Perceived\_usefulness: None

}

p4

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Person {

Age: None

Gender: female

Education: None

Injury\_level: C4

ASIA\_score: C

Time\_after\_injury: 10

Training\_sessions: 5

Donning:

{'session': 1, 'all\_green': 7, 'final\_thresh': 12, 'final\_FES': 10, 'total': 29}

{'session': 2, 'all\_green': 7, 'final\_thresh': 12, 'final\_FES': 30, 'total': 49}

{'session': 3, 'all\_green': 4, 'final\_thresh': 0, 'final\_FES': 21, 'total': 25}

{'session': 4, 'all\_green': 13, 'final\_thresh': 27, 'final\_FES': 2, 'total': 42}

{'session': 5, 'all\_green': 11, 'final\_thresh': 10, 'final\_FES': 6, 'total': 27}

NASA\_TLX:

{'session': 1, 'mental\_demand': 10, 'physical\_demand': 12, 'temporal\_demand': 8, 'performance': 7, 'effort': 10, 'frustration': 2, 'total': 49}

{'session': 2, 'mental\_demand': 11, 'physical\_demand': 13, 'temporal\_demand': 1, 'performance': 10, 'effort': 10, 'frustration': 1, 'total': 46}

{'session': 3, 'mental\_demand': 16, 'physical\_demand': 17, 'temporal\_demand': 4, 'performance': 6, 'effort': 12, 'frustration': 2, 'total': 57}

{'session': 4, 'mental\_demand': 4, 'physical\_demand': 10, 'temporal\_demand': 4, 'performance': 11, 'effort': 12, 'frustration': 13, 'total': 54}

{'session': 5, 'mental\_demand': 4, 'physical\_demand': 4, 'temporal\_demand': 4, 'performance': 14, 'effort': 4, 'frustration': 4, 'total': 34}

SAndS:

{'session': 1, 'stress': 0, 'satisfaction': 7}

{'session': 2, 'stress': 1, 'satisfaction': 5}

{'session': 3, 'stress': 0, 'satisfaction': 7}

{'session': 4, 'stress': 5, 'satisfaction': 5}

{'session': 5, 'stress': 0, 'satisfaction': 3}

BCIFES\_Trials:

{'session': 1, 'TP': nan, 'FP': nan, 'TN': nan}

{'session': 2, 'TP': nan, 'FP': nan, 'TN': nan}

{'session': 3, 'TP': 2, 'FP': 0, 'TN': 8}

{'session': 4, 'TP': 8, 'FP': 0, 'TN': 2}

{'session': 5, 'TP': 10, 'FP': 10, 'TN': 0}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'FCR', 'L': '4+', 'R': '4+'}

{'muscle': 'ECRL', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'FDP', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'EDC', 'L': '2-', 'R': '2-'}

{'muscle': 'FPL', 'L': '4+', 'R': '4+'}

{'muscle': 'EPL', 'L': '2-', 'R': array([4], dtype=uint8)}

{'muscle': 'ADM', 'L': '3+', 'R': '3+'}

MMT\_final:

PIADS:

{'confident': 3, 'secure': 5, 'fit\_with\_routine': 5, 'fit\_in\_environments': 5, 'comfortable': 5}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [nan]}

{'session': 2, 'threshold': [0.75]}

{'session': 3, 'threshold': [0.75, 0.5, 0.4]}

{'session': 4, 'threshold': [0.7, 1.5]}

{'session': 5, 'threshold': [1.0, 0.5, 1.0]}

FES\_parameters:

{'session': 1, 'current': [nan, nan], 'pulse\_width': [nan, nan], 'start\_time': [nan, nan], 'duration': [nan, nan]}

{'session': 2, 'current': [nan, nan], 'pulse\_width': [nan, nan], 'start\_time': [nan, nan], 'duration': [nan, nan]}

{'session': 3, 'current': [14, 16], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 4, 'current': [14, 12], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 5, 'current': [18, 14], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

FES\_times:

Perceived\_usefulness: None

}

p5

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Person {

Age: None

Gender: male

Education: None

Injury\_level: C5

ASIA\_score: D

Time\_after\_injury: 26

Training\_sessions: 5

Donning:

{'session': 1, 'all\_green': 7, 'final\_thresh': 13, 'final\_FES': 22, 'total': 42}

{'session': 2, 'all\_green': 6, 'final\_thresh': 16, 'final\_FES': 16, 'total': 38}

{'session': 3, 'all\_green': 1, 'final\_thresh': 17, 'final\_FES': 10, 'total': 28}

{'session': 4, 'all\_green': 1, 'final\_thresh': 12, 'final\_FES': 8, 'total': 21}

{'session': 5, 'all\_green': 7, 'final\_thresh': 6, 'final\_FES': 13, 'total': 26}

{'session': 6, 'all\_green': 7, 'final\_thresh': 21, 'final\_FES': 3, 'total': 31}

{'session': 7, 'all\_green': 4, 'final\_thresh': 11, 'final\_FES': 6, 'total': 21}

{'session': 8, 'all\_green': 2, 'final\_thresh': 11, 'final\_FES': 3, 'total': 16}

{'session': 9, 'all\_green': 4, 'final\_thresh': 11, 'final\_FES': 5, 'total': 20}

{'session': 10, 'all\_green': 10, 'final\_thresh': 8, 'final\_FES': 5, 'total': 23}

{'session': 11, 'all\_green': 2, 'final\_thresh': 14, 'final\_FES': 2, 'total': 18}

{'session': 12, 'all\_green': 5, 'final\_thresh': 9, 'final\_FES': 6, 'total': 20}

{'session': 13, 'all\_green': 4, 'final\_thresh': 16, 'final\_FES': 4, 'total': 24}

{'session': 14, 'all\_green': 4, 'final\_thresh': 13, 'final\_FES': 5, 'total': 22}

{'session': 15, 'all\_green': 2, 'final\_thresh': 8, 'final\_FES': 5, 'total': 15}

NASA\_TLX:

{'session': 1, 'mental\_demand': 10, 'physical\_demand': 10, 'temporal\_demand': 1, 'performance': 0, 'effort': 20, 'frustration': 1, 'total': 42}

{'session': 2, 'mental\_demand': 10, 'physical\_demand': 1, 'temporal\_demand': 4, 'performance': 7, 'effort': 4, 'frustration': 1, 'total': 27}

{'session': 3, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 10, 'performance': 2, 'effort': 10, 'frustration': 2, 'total': 36}

{'session': 4, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 6, 'total': 36}

{'session': 5, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 6, 'total': 36}

{'session': 6, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 6, 'total': 36}

{'session': 7, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 6, 'total': 36}

{'session': 8, 'mental\_demand': 10, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 10, 'effort': 6, 'frustration': 10, 'total': 48}

{'session': 9, 'mental\_demand': 10, 'physical\_demand': 8, 'temporal\_demand': 8, 'performance': 8, 'effort': 8, 'frustration': 16, 'total': 58}

{'session': 10, 'mental\_demand': 10, 'physical\_demand': 10, 'temporal\_demand': 10, 'performance': 6, 'effort': 10, 'frustration': 6, 'total': 52}

{'session': 11, 'mental\_demand': 10, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 2, 'total': 36}

{'session': 12, 'mental\_demand': 14, 'physical\_demand': 10, 'temporal\_demand': 10, 'performance': 14, 'effort': 10, 'frustration': 2, 'total': 60}

{'session': 13, 'mental\_demand': 10, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 10, 'effort': 6, 'frustration': 10, 'total': 48}

{'session': 14, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 6, 'effort': 6, 'frustration': 6, 'total': 36}

{'session': 15, 'mental\_demand': 6, 'physical\_demand': 6, 'temporal\_demand': 6, 'performance': 10, 'effort': 6, 'frustration': 1, 'total': 35}

SAndS:

{'session': 1, 'stress': nan, 'satisfaction': nan}

{'session': 2, 'stress': 0, 'satisfaction': 8}

{'session': 3, 'stress': 0, 'satisfaction': 10}

{'session': 4, 'stress': 0, 'satisfaction': 9}

{'session': 5, 'stress': 3, 'satisfaction': 5}

{'session': 6, 'stress': 3, 'satisfaction': 5}

{'session': 7, 'stress': 0, 'satisfaction': 10}

{'session': 8, 'stress': 3, 'satisfaction': 9}

{'session': 9, 'stress': 5, 'satisfaction': 5}

{'session': 10, 'stress': 0, 'satisfaction': 10}

{'session': 11, 'stress': 0, 'satisfaction': 10}

{'session': 12, 'stress': 3, 'satisfaction': 10}

{'session': 13, 'stress': 5, 'satisfaction': 10}

{'session': 14, 'stress': 3, 'satisfaction': 10}

{'session': 15, 'stress': 2, 'satisfaction': 10}

BCIFES\_Trials:

{'session': 1, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 2, 'TP': 8, 'FP': 0, 'TN': 2}

{'session': 3, 'TP': 7, 'FP': 3, 'TN': 0}

{'session': 4, 'TP': 7, 'FP': 3, 'TN': 0}

{'session': 5, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 6, 'TP': 9, 'FP': 0, 'TN': 1}

{'session': 7, 'TP': 18, 'FP': 0, 'TN': 2}

{'session': 8, 'TP': 8, 'FP': 0, 'TN': 2}

{'session': 9, 'TP': 19, 'FP': 1, 'TN': 0}

{'session': 10, 'TP': 7, 'FP': 3, 'TN': 0}

{'session': 11, 'TP': 8, 'FP': 2, 'TN': 0}

{'session': 12, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 13, 'TP': 9, 'FP': 1, 'TN': 0}

{'session': 14, 'TP': 9, 'FP': 1, 'TN': 0}

{'session': 15, 'TP': 8, 'FP': 2, 'TN': 0}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FCR', 'L': '4-', 'R': array([4], dtype=uint8)}

{'muscle': 'ECRL', 'L': '4+', 'R': array([5], dtype=uint8)}

{'muscle': 'FDP', 'L': array([2], dtype=uint8), 'R': '4+'}

{'muscle': 'EDC', 'L': array([0], dtype=uint8), 'R': '2-'}

{'muscle': 'FPL', 'L': '4-', 'R': array([4], dtype=uint8)}

{'muscle': 'EPL', 'L': array([0], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'ADM', 'L': '4-', 'R': '4-'}

MMT\_final:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': '3+', 'R': array([4], dtype=uint8)}

{'muscle': 'FCR', 'L': '4-', 'R': '4+'}

{'muscle': 'ECRL', 'L': array([4], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'FDP', 'L': '4-', 'R': '4+'}

{'muscle': 'EDC', 'L': '2-', 'R': '4-'}

{'muscle': 'FPL', 'L': '3+', 'R': '4+'}

{'muscle': 'EPL', 'L': array([0], dtype=uint8), 'R': '4-'}

{'muscle': 'ADM', 'L': '3-', 'R': '4-'}

PIADS:

{'confident': 3, 'secure': 5, 'fit\_with\_routine': 3, 'fit\_in\_environments': 5, 'comfortable': 5}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [2.725]}

{'session': 2, 'threshold': [1]}

{'session': 3, 'threshold': [2.4]}

{'session': 4, 'threshold': [2.3]}

{'session': 5, 'threshold': [1.8, 0.1]}

{'session': 6, 'threshold': [1.5, 3.0, 4.0]}

{'session': 7, 'threshold': [2.8]}

{'session': 8, 'threshold': [1.7]}

{'session': 9, 'threshold': [3.4]}

{'session': 10, 'threshold': [1.4]}

{'session': 11, 'threshold': [7.4, 2.0]}

{'session': 12, 'threshold': [1.45]}

{'session': 13, 'threshold': [4.08, 1.0]}

{'session': 14, 'threshold': [2.3, 1.0, 1.5]}

{'session': 15, 'threshold': [2, 1]}

FES\_parameters:

{'session': 1, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 2, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 3, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 4, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 5, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 6, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 7, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 8, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 9, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 10, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 11, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 12, 'current': [46, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 13, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 14, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 15, 'current': [50, 40], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [1.0399999999999636]}

{'session': 2, 'times\_for\_activation': [8.909999999999854]}

{'session': 3, 'times\_for\_activation': [1.0199999999999818]}

{'session': 4, 'times\_for\_activation': [4.269999999999982]}

{'session': None, 'times\_for\_activation': []}

{'session': 6, 'times\_for\_activation': [1.627999999999929]}

{'session': 7, 'times\_for\_activation': [1.62600000000009]}

{'session': 8, 'times\_for\_activation': [4.222000000000094]}

{'session': 9, 'times\_for\_activation': [8.669999999999959]}

{'session': 10, 'times\_for\_activation': [6.480000000000018]}

{'session': 11, 'times\_for\_activation': [0.029999999999972715]}

{'session': 12, 'times\_for\_activation': [3.6000000000000227]}

{'session': 13, 'times\_for\_activation': [2.6699999999998454]}

{'session': 14, 'times\_for\_activation': [3.2999999999999545]}

{'session': 15, 'times\_for\_activation': [6.451000000000022]}

Perceived\_usefulness: None

}

p6

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Person {

Age: None

Gender: male

Education: None

Injury\_level: C4

ASIA\_score: C

Time\_after\_injury: 6

Training\_sessions: 4

Donning:

{'session': 1, 'all\_green': 12, 'final\_thresh': 17, 'final\_FES': 10, 'total': 39}

{'session': 2, 'all\_green': 14, 'final\_thresh': 12, 'final\_FES': 4, 'total': 30}

{'session': 3, 'all\_green': 3, 'final\_thresh': 13, 'final\_FES': 7, 'total': 23}

{'session': 4, 'all\_green': 5, 'final\_thresh': 8, 'final\_FES': 7, 'total': 20}

NASA\_TLX:

{'session': 1, 'mental\_demand': 14, 'physical\_demand': 14, 'temporal\_demand': 2, 'performance': 1, 'effort': 20, 'frustration': 2, 'total': 53}

{'session': 2, 'mental\_demand': 15, 'physical\_demand': 10, 'temporal\_demand': 10, 'performance': 2, 'effort': 20, 'frustration': 1, 'total': 58}

{'session': 3, 'mental\_demand': 3, 'physical\_demand': 3, 'temporal\_demand': 3, 'performance': 0, 'effort': 17, 'frustration': 1, 'total': 27}

{'session': 4, 'mental\_demand': 0, 'physical\_demand': 0, 'temporal\_demand': 2, 'performance': 0, 'effort': 0, 'frustration': 0, 'total': 2}

SAndS:

{'session': 1, 'stress': 0, 'satisfaction': 10}

{'session': 2, 'stress': 3, 'satisfaction': 10}

{'session': 3, 'stress': 0, 'satisfaction': 10}

{'session': 4, 'stress': 0, 'satisfaction': 10}

BCIFES\_Trials:

{'session': 1, 'TP': 6, 'FP': 0, 'TN': 4}

{'session': 2, 'TP': 8, 'FP': 1, 'TN': 1}

{'session': 3, 'TP': 20, 'FP': 0, 'TN': 0}

{'session': 4, 'TP': 17, 'FP': 0, 'TN': 2}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': array([5], dtype=uint8), 'R': array([5], dtype=uint8)}

{'muscle': 'triceps', 'L': array([4], dtype=uint8), 'R': '4+'}

{'muscle': 'FCR', 'L': array([4], dtype=uint8), 'R': '4+'}

{'muscle': 'ECRL', 'L': '4+', 'R': array([5], dtype=uint8)}

{'muscle': 'FDP', 'L': array([3], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'EDC', 'L': '4-', 'R': '2+'}

{'muscle': 'FPL', 'L': '3+', 'R': array([1], dtype=uint8)}

{'muscle': 'EPL', 'L': '3+', 'R': '2-'}

{'muscle': 'ADM', 'L': '3+', 'R': '2-'}

MMT\_final:

PIADS:

{'confident': 4, 'secure': 5, 'fit\_with\_routine': 5, 'fit\_in\_environments': 5, 'comfortable': 5}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [1.5]}

{'session': 2, 'threshold': [1.5]}

{'session': 3, 'threshold': [9.9, 4.0, 1.5]}

{'session': 4, 'threshold': [1.5]}

FES\_parameters:

{'session': 1, 'current': [18, 24], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 2, 'current': [18, 24], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 3, 'current': [18, 24], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 3000]}

{'session': 4, 'current': [18, 24], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [11.0]}

{'session': 2, 'times\_for\_activation': [3.3200000000001637]}

{'session': 3, 'times\_for\_activation': [1.0399999999999636]}

{'session': 4, 'times\_for\_activation': [10.271999999999935]}

Perceived\_usefulness: None

}

p7

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Person {

Age: None

Gender: male

Education: None

Injury\_level: C2

ASIA\_score: D

Time\_after\_injury: 7

Training\_sessions: 5

Donning:

{'session': 1, 'all\_green': 6, 'final\_thresh': 24, 'final\_FES': 14, 'total': 44}

{'session': 2, 'all\_green': 6, 'final\_thresh': 16, 'final\_FES': 14, 'total': 36}

{'session': 3, 'all\_green': 5, 'final\_thresh': 27, 'final\_FES': 7, 'total': 39}

{'session': 4, 'all\_green': 5, 'final\_thresh': 20, 'final\_FES': 7, 'total': 32}

{'session': 5, 'all\_green': 8, 'final\_thresh': 12, 'final\_FES': 14, 'total': 34}

NASA\_TLX:

{'session': 1, 'mental\_demand': 9, 'physical\_demand': 9, 'temporal\_demand': 4, 'performance': 8, 'effort': 2, 'frustration': 2, 'total': 34}

{'session': 2, 'mental\_demand': 3, 'physical\_demand': 4, 'temporal\_demand': 4, 'performance': 12, 'effort': 10, 'frustration': 10, 'total': 43}

{'session': 3, 'mental\_demand': 20, 'physical\_demand': 10, 'temporal\_demand': 10, 'performance': 1, 'effort': 10, 'frustration': 11, 'total': 62}

{'session': 4, 'mental\_demand': 4, 'physical\_demand': 15, 'temporal\_demand': 4, 'performance': 3, 'effort': 17, 'frustration': 2, 'total': 45}

{'session': 5, 'mental\_demand': 15, 'physical\_demand': 4, 'temporal\_demand': 6, 'performance': 1, 'effort': 14, 'frustration': 4, 'total': 44}

SAndS:

{'session': 1, 'stress': 0, 'satisfaction': 10}

{'session': 2, 'stress': 5, 'satisfaction': 5}

{'session': 3, 'stress': 8, 'satisfaction': 10}

{'session': 4, 'stress': 2, 'satisfaction': 7}

{'session': 5, 'stress': 7, 'satisfaction': 7}

BCIFES\_Trials:

{'session': 1, 'TP': 6, 'FP': 4, 'TN': 0}

{'session': 2, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 3, 'TP': 9, 'FP': 1, 'TN': 0}

{'session': 4, 'TP': 7, 'FP': 3, 'TN': 0}

{'session': 5, 'TP': 17, 'FP': 0, 'TN': 3}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'triceps', 'L': array([4], dtype=uint8), 'R': array([2], dtype=uint8)}

{'muscle': 'FCR', 'L': array([4], dtype=uint8), 'R': '2-'}

{'muscle': 'ECRL', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FDP', 'L': '4-', 'R': '2-'}

{'muscle': 'EDC', 'L': '3+', 'R': '2-'}

{'muscle': 'FPL', 'L': array([4], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'EPL', 'L': array([4], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'ADM', 'L': array([4], dtype=uint8), 'R': array([4], dtype=uint8)}

MMT\_final:

PIADS:

{'confident': 3, 'secure': 5, 'fit\_with\_routine': 2, 'fit\_in\_environments': 1, 'comfortable': 3}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [2.86]}

{'session': 2, 'threshold': [0.58, 1.0]}

{'session': 3, 'threshold': [1, 2]}

{'session': 4, 'threshold': [1.86]}

{'session': 5, 'threshold': [1.1]}

FES\_parameters:

{'session': 1, 'current': [18, 24], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 2, 'current': [18, 32], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 4000]}

{'session': 3, 'current': [18, 30], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 4, 'current': [18, 30], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

{'session': 5, 'current': [18, 32], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [4000, 4000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [4.789999999999964]}

{'session': 2, 'times\_for\_activation': [1.6600000000000819]}

{'session': 3, 'times\_for\_activation': [12.429999999999836]}

{'session': 4, 'times\_for\_activation': [0.03999999999996362]}

{'session': 5, 'times\_for\_activation': [2.6800000000000637]}

Perceived\_usefulness: None

}

p8

----------------------

Person {

Age: None

Gender: male

Education: None

Injury\_level: C4

ASIA\_score: D

Time\_after\_injury: 18

Training\_sessions: 4

Donning:

{'session': 1, 'all\_green': 7, 'final\_thresh': 20, 'final\_FES': 17, 'total': 44}

{'session': 2, 'all\_green': 5, 'final\_thresh': 14, 'final\_FES': 8, 'total': 27}

{'session': 3, 'all\_green': 2, 'final\_thresh': 10, 'final\_FES': 4, 'total': 16}

{'session': 4, 'all\_green': 6, 'final\_thresh': 24, 'final\_FES': 0, 'total': 30}

{'session': 5, 'all\_green': 4, 'final\_thresh': 9, 'final\_FES': 6, 'total': 19}

{'session': 6, 'all\_green': 2, 'final\_thresh': 10, 'final\_FES': 7, 'total': 19}

{'session': 7, 'all\_green': 4, 'final\_thresh': 6, 'final\_FES': 21, 'total': 31}

{'session': 8, 'all\_green': 3, 'final\_thresh': 9, 'final\_FES': 4, 'total': 16}

{'session': 9, 'all\_green': 6, 'final\_thresh': 7, 'final\_FES': 8, 'total': 21}

{'session': 10, 'all\_green': 5, 'final\_thresh': 20, 'final\_FES': 6, 'total': 31}

NASA\_TLX:

{'session': 1, 'mental\_demand': 10, 'physical\_demand': 14, 'temporal\_demand': 7, 'performance': 10, 'effort': 17, 'frustration': 10, 'total': 68}

{'session': 2, 'mental\_demand': 14, 'physical\_demand': 14, 'temporal\_demand': 4, 'performance': 10, 'effort': 10, 'frustration': 14, 'total': 66}

{'session': 3, 'mental\_demand': 5, 'physical\_demand': 8, 'temporal\_demand': 5, 'performance': 5, 'effort': 8, 'frustration': 5, 'total': 36}

{'session': 4, 'mental\_demand': 6, 'physical\_demand': 10, 'temporal\_demand': 4, 'performance': 9, 'effort': 9, 'frustration': 2, 'total': 40}

{'session': 5, 'mental\_demand': 5, 'physical\_demand': 7, 'temporal\_demand': 2, 'performance': 3, 'effort': 5, 'frustration': 2, 'total': 24}

{'session': 6, 'mental\_demand': 2, 'physical\_demand': 3, 'temporal\_demand': 2, 'performance': 3, 'effort': 3, 'frustration': 1, 'total': 14}

{'session': 7, 'mental\_demand': 10, 'physical\_demand': 3, 'temporal\_demand': 1, 'performance': 4, 'effort': 4, 'frustration': 8, 'total': 30}

{'session': 8, 'mental\_demand': 3, 'physical\_demand': 3, 'temporal\_demand': 1, 'performance': 3, 'effort': 5, 'frustration': 1, 'total': 16}

{'session': 9, 'mental\_demand': 2, 'physical\_demand': 6, 'temporal\_demand': 2, 'performance': 5, 'effort': 4, 'frustration': 4, 'total': 23}

{'session': 10, 'mental\_demand': 1, 'physical\_demand': 1, 'temporal\_demand': 3, 'performance': 2, 'effort': 1, 'frustration': 1, 'total': 9}

SAndS:

{'session': 1, 'stress': 0, 'satisfaction': 8}

{'session': 2, 'stress': 0, 'satisfaction': 8}

{'session': 3, 'stress': 0, 'satisfaction': 9}

{'session': 4, 'stress': 0, 'satisfaction': 8}

{'session': 5, 'stress': 0, 'satisfaction': 9}

{'session': 6, 'stress': 0, 'satisfaction': 9}

{'session': 7, 'stress': 0, 'satisfaction': 9}

{'session': 8, 'stress': 0, 'satisfaction': 9}

{'session': 9, 'stress': 0, 'satisfaction': 9}

{'session': 10, 'stress': 0, 'satisfaction': 10}

BCIFES\_Trials:

{'session': 1, 'TP': 8, 'FP': 1, 'TN': 1}

{'session': 2, 'TP': 10, 'FP': 0, 'TN': 0}

{'session': 3, 'TP': 9, 'FP': 0, 'TN': 1}

{'session': 4, 'TP': 9, 'FP': 0, 'TN': 1}

{'session': 5, 'TP': 18, 'FP': 0, 'TN': 1}

{'session': 6, 'TP': 19, 'FP': 0, 'TN': 1}

{'session': 7, 'TP': 20, 'FP': 0, 'TN': 0}

{'session': 8, 'TP': 24, 'FP': 2, 'TN': 4}

{'session': 9, 'TP': 18, 'FP': 1, 'TN': 1}

{'session': 10, 'TP': 11, 'FP': 9, 'TN': 0}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': '2+', 'R': '3+'}

{'muscle': 'triceps', 'L': array([3], dtype=uint8), 'R': array([3], dtype=uint8)}

{'muscle': 'FCR', 'L': array([2], dtype=uint8), 'R': '3-'}

{'muscle': 'ECRL', 'L': '2-', 'R': array([4], dtype=uint8)}

{'muscle': 'FDP', 'L': array([2], dtype=uint8), 'R': '3+'}

{'muscle': 'EDC', 'L': '2-', 'R': '3+'}

{'muscle': 'FPL', 'L': '2-', 'R': '3+'}

{'muscle': 'EPL', 'L': '2-', 'R': '3+'}

{'muscle': 'ADM', 'L': '2-', 'R': array([2], dtype=uint8)}

MMT\_final:

{'muscle': 'biceps/bracialis', 'L': '3+', 'R': array([4], dtype=uint8)}

{'muscle': 'triceps', 'L': array([3], dtype=uint8), 'R': array([4], dtype=uint8)}

{'muscle': 'FCR', 'L': '4-', 'R': '3+'}

{'muscle': 'ECRL', 'L': '3+', 'R': '3+'}

{'muscle': 'FDP', 'L': '3+', 'R': '4-'}

{'muscle': 'EDC', 'L': array([3], dtype=uint8), 'R': array([2], dtype=uint8)}

{'muscle': 'FPL', 'L': array([0], dtype=uint8), 'R': array([3], dtype=uint8)}

{'muscle': 'EPL', 'L': array([1], dtype=uint8), 'R': '3+'}

{'muscle': 'ADM', 'L': array([3], dtype=uint8), 'R': array([3], dtype=uint8)}

PIADS:

{'confident': 3, 'secure': 4, 'fit\_with\_routine': 4, 'fit\_in\_environments': 5, 'comfortable': 5}

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [0.9, 1.5, 2.0]}

{'session': 2, 'threshold': [1.3, 2.0]}

{'session': 3, 'threshold': [2.2]}

{'session': 4, 'threshold': [1.1, 2.0]}

{'session': 5, 'threshold': [2]}

{'session': 6, 'threshold': [2, 3]}

{'session': 7, 'threshold': [1, 2]}

{'session': 8, 'threshold': [2]}

{'session': 9, 'threshold': [2]}

{'session': 10, 'threshold': [2, 3, 1, 2]}

FES\_parameters:

{'session': 1, 'current': [36, 42], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 2, 'current': [36, 42], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 3, 'current': [36, 42], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 4, 'current': [36, 42], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 5, 'current': [36, 42], 'pulse\_width': [250, 300], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 6, 'current': [36, 42], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 7, 'current': [42, 48], 'pulse\_width': [250, 300], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 8, 'current': [42, 48], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 9, 'current': [42, 48], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

{'session': 10, 'current': [42, 48], 'pulse\_width': [250, 250], 'start\_time': [0, 5000], 'duration': [5000, 4000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [1.0799999999999272]}

{'session': 2, 'times\_for\_activation': [3.0]}

{'session': 3, 'times\_for\_activation': [2.197999999999979]}

{'session': 4, 'times\_for\_activation': [3.730000000000018]}

{'session': 5, 'times\_for\_activation': [1.8400000000000318]}

{'session': 6, 'times\_for\_activation': [1.0199999999999818]}

{'session': 7, 'times\_for\_activation': [3.2899999999999636]}

{'session': 8, 'times\_for\_activation': [2.38900000000001]}

{'session': 9, 'times\_for\_activation': [11.693000000000097]}

{'session': 10, 'times\_for\_activation': [1.9800000000000182]}

Perceived\_usefulness: None

}

p9

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Person {

Age: None

Gender: male

Education: None

Injury\_level: C5

ASIA\_score: C

Time\_after\_injury: 13

Training\_sessions: 1

Donning:

{'session': 1, 'all\_green': 5, 'final\_thresh': 15, 'final\_FES': 10, 'total': 30}

NASA\_TLX:

{'session': 1, 'mental\_demand': 10, 'physical\_demand': 2, 'temporal\_demand': 10, 'performance': 14, 'effort': 13, 'frustration': 13, 'total': 62}

SAndS:

{'session': 1, 'stress': 0, 'satisfaction': 9}

BCIFES\_Trials:

{'session': 1, 'TP': 7, 'FP': 3, 'TN': 0}

MMT\_initial:

{'muscle': 'biceps/bracialis', 'L': '3+', 'R': '2+'}

{'muscle': 'triceps', 'L': '2+', 'R': '2+'}

{'muscle': 'FCR', 'L': array([3], dtype=uint8), 'R': '2-'}

{'muscle': 'ECRL', 'L': '2-', 'R': '2-'}

{'muscle': 'FDP', 'L': array([0], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'EDC', 'L': array([0], dtype=uint8), 'R': array([0], dtype=uint8)}

{'muscle': 'FPL', 'L': '2-', 'R': array([3], dtype=uint8)}

{'muscle': 'EPL', 'L': '3+', 'R': '3+'}

{'muscle': 'ADM', 'L': array([3], dtype=uint8), 'R': array([3], dtype=uint8)}

MMT\_final:

PIADS:

ROM\_initial: None

ROM\_final: None

Threshold:

{'session': 1, 'threshold': [1.24, 3.0]}

FES\_parameters:

{'session': 1, 'current': [32, 26], 'pulse\_width': [250, 250], 'start\_time': [0, 4000], 'duration': [4000, 3000]}

FES\_times:

{'session': 1, 'times\_for\_activation': [1.25]}

Perceived\_usefulness: None

}

Process finished with exit code 0