

# ML3H1 Pseudocode

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**Algorithm 1** ML3H1

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1: procedure ML3H1
2:   Define serial port and e-mail to create HumanReaction object
3:   Request participant demographics
4:   Use data from demographics to determine dominant and non-dominant hand
5:   Non-dominant hand is set to left by default
6:   if The subject's dominant hand is left then
7:     Non-dominant hand is right
8:   else if The subject is ambidextrous then
9:     The dominant hand is set to right
10:  Request input for how many trials to run
11:  Notify subject to use dominant hand first
12:  Run HRTRIAL with the created object, dominant hand, and amount of trials entered
13:  Notify subject to use non-dominant hand first
14:  Run HRTRIAL with the created object, non-dominant hand, and amount of trials
    entered
15:  Run HRAVERAGES to retrieve class set averages
16:  Calculate averages of subject and print out comparisons to class set


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17: procedure HRTRIAL
18:   if The subject is right-handed then
19:     Set full hand name to right (instead of "r")
20:   for  $i$  from 1 to the amount of trials do
21:     Run a single reaction test
22:     Record results
23:     Upload datapoint
24:   Return a matrix with all three reaction test data


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25: procedure HRAVERAGES
26:   Retrieve class data set
27:   Convert table to an array
28:   for  $i$  from 1 to the height of the matrix do
29:     if The subjects dominant hand is the same as test hand, or if subject is ambidex-
        trous then
30:       Add data to dominant count
31:       Increase number of dominant datapoints by one
32:     else
33:       Add data to non-dominant count
34:       Increase number of non-dominant datapoints by one
35:   Return mean of dominant and non-dominant class set averages
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