Flowchart for correct reps and fatigue detection

Increment > 17%

Fatigue\_flag = 1

Compare the increment with %value

MAX >= threshold

Data > MAX

Data <= MAX

Data <= baseline

Data > baseline

Increment # of reps

Compare MAX with threshold

Compare the data with baseline

Get a data from txt file

MAX will store data’s value

Compare the data with MAX

MAX < threshold

Prev = curr  
Curr = MAX

Calculate the increment between curr and prev

Variables used in the algorithm with their initialization:

Int reps = 0; // used for storing number of correct reps

Int MAX = 0; // used for storing the peak voltage

Int Threshold = 0; // will be set after doing the calibration

Int Prev = 1024; // used for storing the previous peak voltage

Int Curr = 1024; // used for storing the current peak voltage

Percentage increment = 17; // used for indicating if the muscle get fatigue or not