Jill,

Here is the model based on 50 "healthy" arms doing the activity script, using the same method in the paper, 17 features.  Around 20 arms are from healthy controls, and the rest are from the good arm of patients from stroke or distal-radius fracture.  The m file takes a sample subject's raw accelerometer data, calculates features and runs it through the classifier.  Accuracy is nearly 1, because this data was included in the training.   Also you will find:

1) Accuracy of leave-one-out testing of the model on the 50 arms, close to 90% on average.

2) picture of the sensor orientations.  Note the sensor readings are not in a right hand frame.  We currently use the Actigraph, units in g, sampled at 50 Hz.   We combined data from another study where the rate was much higher, but we downsampled that data before calculating features.  If your sample rate is not 50, you can use the interp1 function to resample.

3) As a check, see x-y phase plot and y-z phase plot of several subjects data.  Your data should look similar.  If not, common errors were wearing the watch upside down (since it doesn't have a face like a watch), or rotation of the watch on the forearm because it was not strapped on tight enough, or not flipping from a left to a right arm.  Note left arm data is transformed to right arm data for the modeling (for us, multiplying the y axis by -1).

Sorry for the delay.  It took quite a while to correct all of the errors in our data set.  Upside down watches, and even some watches worn on the wrong arm.

Let me know if you have any questions.

Pete