

# Codebook for HAR Analysis Project

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## Introduction

This dataset is a tidy and reduced set of the data

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Human Activity Recognition Using Smartphones Dataset Version 1.0

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available at <https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip>

Additional information about the data is available at  
<https://archive.ics.uci.edu/dataset/240/human+activity+recognition+using+smartphones>

## Data Description

This data is collected from accelerometer and gyroscope 3-axial signals. The transducer is indicated in the tidy data as ‘Acceleratometer’ or ‘Gyroscope’. Time domain data is indicated as “timedomain” while frequency domain data is listed as “frequencydomain” from Fast Fourier Transform output. From the original data set, only mean and standard deviation (“std”) data is kept. The axis of motion is indicated by “-X”, “-Y” and “-Z”. Please see the table below for the original data set name, new name, and whether the data was retained or not. All data is normalized to unitless magnitude of -1 to 1.

original_name	new_name	retained
tBodyAcc-mean()-X	timedomainBodyAccelerometer-mean()-X	TRUE
tBodyAcc-mean()-Y	timedomainBodyAccelerometer-mean()-Y	TRUE
tBodyAcc-mean()-Z	timedomainBodyAccelerometer-mean()-Z	TRUE
tBodyAcc-std()-X	timedomainBodyAccelerometer-std()-X	TRUE
tBodyAcc-std()-Y	timedomainBodyAccelerometer-std()-Y	TRUE
tBodyAcc-std()-Z	timedomainBodyAccelerometer-std()-Z	TRUE
tBodyAcc-mad()-X		FALSE
tBodyAcc-mad()-Y		FALSE
tBodyAcc-mad()-Z		FALSE

original_name	new_name	retained
tBodyAcc-max()-X		FALSE
tBodyAcc-max()-Y		FALSE
tBodyAcc-max()-Z		FALSE
tBodyAcc-min()-X		FALSE
tBodyAcc-min()-Y		FALSE
tBodyAcc-min()-Z		FALSE
tBodyAcc-sma()		FALSE
tBodyAcc-energy()-X		FALSE
tBodyAcc-energy()-Y		FALSE
tBodyAcc-energy()-Z		FALSE
tBodyAcc-iqr()-X		FALSE
tBodyAcc-iqr()-Y		FALSE
tBodyAcc-iqr()-Z		FALSE
tBodyAcc-entropy()-X		FALSE
tBodyAcc-entropy()-Y		FALSE
tBodyAcc-entropy()-Z		FALSE
tBodyAcc-arCoeff()-X,1		FALSE
tBodyAcc-arCoeff()-X,2		FALSE
tBodyAcc-arCoeff()-X,3		FALSE
tBodyAcc-arCoeff()-X,4		FALSE
tBodyAcc-arCoeff()-Y,1		FALSE
tBodyAcc-arCoeff()-Y,2		FALSE
tBodyAcc-arCoeff()-Y,3		FALSE
tBodyAcc-arCoeff()-Y,4		FALSE
tBodyAcc-arCoeff()-Z,1		FALSE
tBodyAcc-arCoeff()-Z,2		FALSE
tBodyAcc-arCoeff()-Z,3		FALSE
tBodyAcc-arCoeff()-Z,4		FALSE
tBodyAcc-correlation()-X,Y		FALSE
tBodyAcc-correlation()-X,Z		FALSE
tBodyAcc-correlation()-Y,Z		FALSE
tGravityAcc-mean()-X	timedomainGravityAccelerometer-mean()-X	TRUE
tGravityAcc-mean()-Y	timedomainGravityAccelerometer-mean()-Y	TRUE
tGravityAcc-mean()-Z	timedomainGravityAccelerometer-mean()-Z	TRUE
tGravityAcc-std()-X	timedomainGravityAccelerometer-std()-X	TRUE
tGravityAcc-std()-Y	timedomainGravityAccelerometer-std()-Y	TRUE
tGravityAcc-std()-Z	timedomainGravityAccelerometer-std()-Z	TRUE
tGravityAcc-mad()-X		FALSE
tGravityAcc-mad()-Y		FALSE
tGravityAcc-mad()-Z		FALSE
tGravityAcc-max()-X		FALSE
tGravityAcc-max()-Y		FALSE
tGravityAcc-max()-Z		FALSE
tGravityAcc-min()-X		FALSE
tGravityAcc-min()-Y		FALSE
tGravityAcc-min()-Z		FALSE
tGravityAcc-sma()		FALSE
tGravityAcc-energy()-X		FALSE
tGravityAcc-energy()-Y		FALSE
tGravityAcc-energy()-Z		FALSE
tGravityAcc-iqr()-X		FALSE
tGravityAcc-iqr()-Y		FALSE

original_name	new_name	retained
tGravityAcc-iqr()-Z		FALSE
tGravityAcc-entropy()-X		FALSE
tGravityAcc-entropy()-Y		FALSE
tGravityAcc-entropy()-Z		FALSE
tGravityAcc-arCoeff()-X,1		FALSE
tGravityAcc-arCoeff()-X,2		FALSE
tGravityAcc-arCoeff()-X,3		FALSE
tGravityAcc-arCoeff()-X,4		FALSE
tGravityAcc-arCoeff()-Y,1		FALSE
tGravityAcc-arCoeff()-Y,2		FALSE
tGravityAcc-arCoeff()-Y,3		FALSE
tGravityAcc-arCoeff()-Y,4		FALSE
tGravityAcc-arCoeff()-Z,1		FALSE
tGravityAcc-arCoeff()-Z,2		FALSE
tGravityAcc-arCoeff()-Z,3		FALSE
tGravityAcc-arCoeff()-Z,4		FALSE
tGravityAcc-correlation()-X,Y		FALSE
tGravityAcc-correlation()-X,Z		FALSE
tGravityAcc-correlation()-Y,Z		FALSE
tBodyAccJerk-mean()-X	timedomainBodyAccelerometerJerk-mean()-X	TRUE
tBodyAccJerk-mean()-Y	timedomainBodyAccelerometerJerk-mean()-Y	TRUE
tBodyAccJerk-mean()-Z	timedomainBodyAccelerometerJerk-mean()-Z	TRUE
tBodyAccJerk-std()-X	timedomainBodyAccelerometerJerk-std()-X	TRUE
tBodyAccJerk-std()-Y	timedomainBodyAccelerometerJerk-std()-Y	TRUE
tBodyAccJerk-std()-Z	timedomainBodyAccelerometerJerk-std()-Z	TRUE
tBodyAccJerk-mad()-X		FALSE
tBodyAccJerk-mad()-Y		FALSE
tBodyAccJerk-mad()-Z		FALSE
tBodyAccJerk-max()-X		FALSE
tBodyAccJerk-max()-Y		FALSE
tBodyAccJerk-max()-Z		FALSE
tBodyAccJerk-min()-X		FALSE
tBodyAccJerk-min()-Y		FALSE
tBodyAccJerk-min()-Z		FALSE
tBodyAccJerk-sma()		FALSE
tBodyAccJerk-energy()-X		FALSE
tBodyAccJerk-energy()-Y		FALSE
tBodyAccJerk-energy()-Z		FALSE
tBodyAccJerk-iqr()-X		FALSE
tBodyAccJerk-iqr()-Y		FALSE
tBodyAccJerk-iqr()-Z		FALSE
tBodyAccJerk-entropy()-X		FALSE
tBodyAccJerk-entropy()-Y		FALSE
tBodyAccJerk-entropy()-Z		FALSE
tBodyAccJerk-arCoeff()-X,1		FALSE
tBodyAccJerk-arCoeff()-X,2		FALSE
tBodyAccJerk-arCoeff()-X,3		FALSE
tBodyAccJerk-arCoeff()-X,4		FALSE
tBodyAccJerk-arCoeff()-Y,1		FALSE
tBodyAccJerk-arCoeff()-Y,2		FALSE
tBodyAccJerk-arCoeff()-Y,3		FALSE
tBodyAccJerk-arCoeff()-Y,4		FALSE

original_name	new_name	retained
tBodyAccJerk-arCoeff()-Z,1		FALSE
tBodyAccJerk-arCoeff()-Z,2		FALSE
tBodyAccJerk-arCoeff()-Z,3		FALSE
tBodyAccJerk-arCoeff()-Z,4		FALSE
tBodyAccJerk-correlation()-X,Y		FALSE
tBodyAccJerk-correlation()-X,Z		FALSE
tBodyAccJerk-correlation()-Y,Z		FALSE
tBodyGyro-mean()-X	timedomainBodyGyroscope-mean()-X	TRUE
tBodyGyro-mean()-Y	timedomainBodyGyroscope-mean()-Y	TRUE
tBodyGyro-mean()-Z	timedomainBodyGyroscope-mean()-Z	TRUE
tBodyGyro-std()-X	timedomainBodyGyroscope-std()-X	TRUE
tBodyGyro-std()-Y	timedomainBodyGyroscope-std()-Y	TRUE
tBodyGyro-std()-Z	timedomainBodyGyroscope-std()-Z	TRUE
tBodyGyro-mad()-X		FALSE
tBodyGyro-mad()-Y		FALSE
tBodyGyro-mad()-Z		FALSE
tBodyGyro-max()-X		FALSE
tBodyGyro-max()-Y		FALSE
tBodyGyro-max()-Z		FALSE
tBodyGyro-min()-X		FALSE
tBodyGyro-min()-Y		FALSE
tBodyGyro-min()-Z		FALSE
tBodyGyro-sma()		FALSE
tBodyGyro-energy()-X		FALSE
tBodyGyro-energy()-Y		FALSE
tBodyGyro-energy()-Z		FALSE
tBodyGyro-iqr()-X		FALSE
tBodyGyro-iqr()-Y		FALSE
tBodyGyro-iqr()-Z		FALSE
tBodyGyro-entropy()-X		FALSE
tBodyGyro-entropy()-Y		FALSE
tBodyGyro-entropy()-Z		FALSE
tBodyGyro-arCoeff()-X,1		FALSE
tBodyGyro-arCoeff()-X,2		FALSE
tBodyGyro-arCoeff()-X,3		FALSE
tBodyGyro-arCoeff()-X,4		FALSE
tBodyGyro-arCoeff()-Y,1		FALSE
tBodyGyro-arCoeff()-Y,2		FALSE
tBodyGyro-arCoeff()-Y,3		FALSE
tBodyGyro-arCoeff()-Y,4		FALSE
tBodyGyro-arCoeff()-Z,1		FALSE
tBodyGyro-arCoeff()-Z,2		FALSE
tBodyGyro-arCoeff()-Z,3		FALSE
tBodyGyro-arCoeff()-Z,4		FALSE
tBodyGyro-correlation()-X,Y		FALSE
tBodyGyro-correlation()-X,Z		FALSE
tBodyGyro-correlation()-Y,Z		FALSE
tBodyGyroJerk-mean()-X	timedomainBodyGyroscopeJerk-mean()-X	TRUE
tBodyGyroJerk-mean()-Y	timedomainBodyGyroscopeJerk-mean()-Y	TRUE
tBodyGyroJerk-mean()-Z	timedomainBodyGyroscopeJerk-mean()-Z	TRUE
tBodyGyroJerk-std()-X	timedomainBodyGyroscopeJerk-std()-X	TRUE
tBodyGyroJerk-std()-Y	timedomainBodyGyroscopeJerk-std()-Y	TRUE

original_name	new_name	retained
tBodyGyroJerk-std()-Z	timedomainBodyGyroscopeJerk-std()-Z	TRUE
tBodyGyroJerk-mad()-X		FALSE
tBodyGyroJerk-mad()-Y		FALSE
tBodyGyroJerk-mad()-Z		FALSE
tBodyGyroJerk-max()-X		FALSE
tBodyGyroJerk-max()-Y		FALSE
tBodyGyroJerk-max()-Z		FALSE
tBodyGyroJerk-min()-X		FALSE
tBodyGyroJerk-min()-Y		FALSE
tBodyGyroJerk-min()-Z		FALSE
tBodyGyroJerk-sma()		FALSE
tBodyGyroJerk-energy()-X		FALSE
tBodyGyroJerk-energy()-Y		FALSE
tBodyGyroJerk-energy()-Z		FALSE
tBodyGyroJerk-iqr()-X		FALSE
tBodyGyroJerk-iqr()-Y		FALSE
tBodyGyroJerk-iqr()-Z		FALSE
tBodyGyroJerk-entropy()-X		FALSE
tBodyGyroJerk-entropy()-Y		FALSE
tBodyGyroJerk-entropy()-Z		FALSE
tBodyGyroJerk-arCoeff()-X,1		FALSE
tBodyGyroJerk-arCoeff()-X,2		FALSE
tBodyGyroJerk-arCoeff()-X,3		FALSE
tBodyGyroJerk-arCoeff()-X,4		FALSE
tBodyGyroJerk-arCoeff()-Y,1		FALSE
tBodyGyroJerk-arCoeff()-Y,2		FALSE
tBodyGyroJerk-arCoeff()-Y,3		FALSE
tBodyGyroJerk-arCoeff()-Y,4		FALSE
tBodyGyroJerk-arCoeff()-Z,1		FALSE
tBodyGyroJerk-arCoeff()-Z,2		FALSE
tBodyGyroJerk-arCoeff()-Z,3		FALSE
tBodyGyroJerk-arCoeff()-Z,4		FALSE
tBodyGyroJerk-correlation()-X,Y		FALSE
tBodyGyroJerk-correlation()-X,Z		FALSE
tBodyGyroJerk-correlation()-Y,Z		FALSE
tBodyAccMag-mean()	timedomainBodyAccelerometerMag-mean()	TRUE
tBodyAccMag-std()	timedomainBodyAccelerometerMag-std()	TRUE
tBodyAccMag-mad()		FALSE
tBodyAccMag-max()		FALSE
tBodyAccMag-min()		FALSE
tBodyAccMag-sma()		FALSE
tBodyAccMag-energy()		FALSE
tBodyAccMag-iqr()		FALSE
tBodyAccMag-entropy()		FALSE
tBodyAccMag-arCoeff()1		FALSE
tBodyAccMag-arCoeff()2		FALSE
tBodyAccMag-arCoeff()3		FALSE
tBodyAccMag-arCoeff()4		FALSE
tGravityAccMag-mean()	timedomainGravityAccelerometerMag-mean()	TRUE
tGravityAccMag-std()	timedomainGravityAccelerometerMag-std()	TRUE
tGravityAccMag-mad()		FALSE
tGravityAccMag-max()		FALSE

original_name	new_name	retained
tGravityAccMag-min()		FALSE
tGravityAccMag-sma()		FALSE
tGravityAccMag-energy()		FALSE
tGravityAccMag-iqr()		FALSE
tGravityAccMag-entropy()		FALSE
tGravityAccMag-arCoeff()1		FALSE
tGravityAccMag-arCoeff()2		FALSE
tGravityAccMag-arCoeff()3		FALSE
tGravityAccMag-arCoeff()4		FALSE
tBodyAccJerkMag-mean()	timedomainBodyAccelerometerJerkMag-mean()	TRUE
tBodyAccJerkMag-std()	timedomainBodyAccelerometerJerkMag-std()	TRUE
tBodyAccJerkMag-mad()		FALSE
tBodyAccJerkMag-max()		FALSE
tBodyAccJerkMag-min()		FALSE
tBodyAccJerkMag-sma()		FALSE
tBodyAccJerkMag-energy()		FALSE
tBodyAccJerkMag-iqr()		FALSE
tBodyAccJerkMag-entropy()		FALSE
tBodyAccJerkMag-arCoeff()1		FALSE
tBodyAccJerkMag-arCoeff()2		FALSE
tBodyAccJerkMag-arCoeff()3		FALSE
tBodyAccJerkMag-arCoeff()4		FALSE
tBodyGyroMag-mean()	timedomainBodyGyroscopeMag-mean()	TRUE
tBodyGyroMag-std()	timedomainBodyGyroscopeMag-std()	TRUE
tBodyGyroMag-mad()		FALSE
tBodyGyroMag-max()		FALSE
tBodyGyroMag-min()		FALSE
tBodyGyroMag-sma()		FALSE
tBodyGyroMag-energy()		FALSE
tBodyGyroMag-iqr()		FALSE
tBodyGyroMag-entropy()		FALSE
tBodyGyroMag-arCoeff()1		FALSE
tBodyGyroMag-arCoeff()2		FALSE
tBodyGyroMag-arCoeff()3		FALSE
tBodyGyroMag-arCoeff()4		FALSE
tBodyGyroJerkMag-mean()	timedomainBodyGyroscopeJerkMag-mean()	TRUE
tBodyGyroJerkMag-std()	timedomainBodyGyroscopeJerkMag-std()	TRUE
tBodyGyroJerkMag-mad()		FALSE
tBodyGyroJerkMag-max()		FALSE
tBodyGyroJerkMag-min()		FALSE
tBodyGyroJerkMag-sma()		FALSE
tBodyGyroJerkMag-energy()		FALSE
tBodyGyroJerkMag-iqr()		FALSE
tBodyGyroJerkMag-entropy()		FALSE
tBodyGyroJerkMag-arCoeff()1		FALSE
tBodyGyroJerkMag-arCoeff()2		FALSE
tBodyGyroJerkMag-arCoeff()3		FALSE
tBodyGyroJerkMag-arCoeff()4		FALSE
fBodyAcc-mean()-X	freqdomainBodyAccelerometer-mean()-X	TRUE
fBodyAcc-mean()-Y	freqdomainBodyAccelerometer-mean()-Y	TRUE
fBodyAcc-mean()-Z	freqdomainBodyAccelerometer-mean()-Z	TRUE
fBodyAcc-std()-X	freqdomainBodyAccelerometer-std()-X	TRUE

original_name	new_name	retained
fBodyAcc-std()-Y	freqdomainBodyAccelerometer-std()-Y	TRUE
fBodyAcc-std()-Z	freqdomainBodyAccelerometer-std()-Z	TRUE
fBodyAcc-mad()-X		FALSE
fBodyAcc-mad()-Y		FALSE
fBodyAcc-mad()-Z		FALSE
fBodyAcc-max()-X		FALSE
fBodyAcc-max()-Y		FALSE
fBodyAcc-max()-Z		FALSE
fBodyAcc-min()-X		FALSE
fBodyAcc-min()-Y		FALSE
fBodyAcc-min()-Z		FALSE
fBodyAcc-sma()		FALSE
fBodyAcc-energy()-X		FALSE
fBodyAcc-energy()-Y		FALSE
fBodyAcc-energy()-Z		FALSE
fBodyAcc-iqr()-X		FALSE
fBodyAcc-iqr()-Y		FALSE
fBodyAcc-iqr()-Z		FALSE
fBodyAcc-entropy()-X		FALSE
fBodyAcc-entropy()-Y		FALSE
fBodyAcc-entropy()-Z		FALSE
fBodyAcc-maxInds-X		FALSE
fBodyAcc-maxInds-Y		FALSE
fBodyAcc-maxInds-Z		FALSE
fBodyAcc-meanFreq()-X	freqdomainBodyAccelerometer-meanFreq()-X	TRUE
fBodyAcc-meanFreq()-Y	freqdomainBodyAccelerometer-meanFreq()-Y	TRUE
fBodyAcc-meanFreq()-Z	freqdomainBodyAccelerometer-meanFreq()-Z	TRUE
fBodyAcc-skewness()-X		FALSE
fBodyAcc-kurtosis()-X		FALSE
fBodyAcc-skewness()-Y		FALSE
fBodyAcc-kurtosis()-Y		FALSE
fBodyAcc-skewness()-Z		FALSE
fBodyAcc-kurtosis()-Z		FALSE
fBodyAcc-bandsEnergy()-1,8		FALSE
fBodyAcc-bandsEnergy()-9,16		FALSE
fBodyAcc-bandsEnergy()-17,24		FALSE
fBodyAcc-bandsEnergy()-25,32		FALSE
fBodyAcc-bandsEnergy()-33,40		FALSE
fBodyAcc-bandsEnergy()-41,48		FALSE
fBodyAcc-bandsEnergy()-49,56		FALSE
fBodyAcc-bandsEnergy()-57,64		FALSE
fBodyAcc-bandsEnergy()-1,16		FALSE
fBodyAcc-bandsEnergy()-17,32		FALSE
fBodyAcc-bandsEnergy()-33,48		FALSE
fBodyAcc-bandsEnergy()-49,64		FALSE
fBodyAcc-bandsEnergy()-1,24		FALSE
fBodyAcc-bandsEnergy()-25,48		FALSE
fBodyAcc-bandsEnergy()-1,8_1		FALSE
fBodyAcc-bandsEnergy()-9,16_1		FALSE
fBodyAcc-bandsEnergy()-17,24_1		FALSE
fBodyAcc-bandsEnergy()-25,32_1		FALSE
fBodyAcc-bandsEnergy()-33,40_1		FALSE

original_name	new_name	retained
fBodyAcc-bandsEnergy()-41,48_1		FALSE
fBodyAcc-bandsEnergy()-49,56_1		FALSE
fBodyAcc-bandsEnergy()-57,64_1		FALSE
fBodyAcc-bandsEnergy()-1,16_1		FALSE
fBodyAcc-bandsEnergy()-17,32_1		FALSE
fBodyAcc-bandsEnergy()-33,48_1		FALSE
fBodyAcc-bandsEnergy()-49,64_1		FALSE
fBodyAcc-bandsEnergy()-1,24_1		FALSE
fBodyAcc-bandsEnergy()-25,48_1		FALSE
fBodyAcc-bandsEnergy()-1,8_2		FALSE
fBodyAcc-bandsEnergy()-9,16_2		FALSE
fBodyAcc-bandsEnergy()-17,24_2		FALSE
fBodyAcc-bandsEnergy()-25,32_2		FALSE
fBodyAcc-bandsEnergy()-33,40_2		FALSE
fBodyAcc-bandsEnergy()-41,48_2		FALSE
fBodyAcc-bandsEnergy()-49,56_2		FALSE
fBodyAcc-bandsEnergy()-57,64_2		FALSE
fBodyAcc-bandsEnergy()-1,16_2		FALSE
fBodyAcc-bandsEnergy()-17,32_2		FALSE
fBodyAcc-bandsEnergy()-33,48_2		FALSE
fBodyAcc-bandsEnergy()-49,64_2		FALSE
fBodyAcc-bandsEnergy()-1,24_2		FALSE
fBodyAcc-bandsEnergy()-25,48_2		FALSE
fBodyAccJerk-mean()-X	freqdomainBodyAccelerometerJerk-mean()-X	TRUE
fBodyAccJerk-mean()-Y	freqdomainBodyAccelerometerJerk-mean()-Y	TRUE
fBodyAccJerk-mean()-Z	freqdomainBodyAccelerometerJerk-mean()-Z	TRUE
fBodyAccJerk-std()-X	freqdomainBodyAccelerometerJerk-std()-X	TRUE
fBodyAccJerk-std()-Y	freqdomainBodyAccelerometerJerk-std()-Y	TRUE
fBodyAccJerk-std()-Z	freqdomainBodyAccelerometerJerk-std()-Z	TRUE
fBodyAccJerk-mad()-X		FALSE
fBodyAccJerk-mad()-Y		FALSE
fBodyAccJerk-mad()-Z		FALSE
fBodyAccJerk-max()-X		FALSE
fBodyAccJerk-max()-Y		FALSE
fBodyAccJerk-max()-Z		FALSE
fBodyAccJerk-min()-X		FALSE
fBodyAccJerk-min()-Y		FALSE
fBodyAccJerk-min()-Z		FALSE
fBodyAccJerk-sma()		FALSE
fBodyAccJerk-energy()-X		FALSE
fBodyAccJerk-energy()-Y		FALSE
fBodyAccJerk-energy()-Z		FALSE
fBodyAccJerk-iqr()-X		FALSE
fBodyAccJerk-iqr()-Y		FALSE
fBodyAccJerk-iqr()-Z		FALSE
fBodyAccJerk-entropy()-X		FALSE
fBodyAccJerk-entropy()-Y		FALSE
fBodyAccJerk-entropy()-Z		FALSE
fBodyAccJerk-maxInds-X		FALSE
fBodyAccJerk-maxInds-Y		FALSE
fBodyAccJerk-maxInds-Z		FALSE
fBodyAccJerk-meanFreq()-X	freqdomainBodyAccelerometerJerk-meanFreq()-X	TRUE



original_name	new_name	retained
fBodyAcc.Jerk-meanFreq()-Y	freqdomainBodyAccelerometerJerk-meanFreq()-Y	TRUE
fBodyAcc.Jerk-meanFreq()-Z	freqdomainBodyAccelerometerJerk-meanFreq()-Z	TRUE
fBodyAcc.Jerk-skewness()-X		FALSE
fBodyAcc.Jerk-kurtosis()-X		FALSE
fBodyAcc.Jerk-skewness()-Y		FALSE
fBodyAcc.Jerk-kurtosis()-Y		FALSE
fBodyAcc.Jerk-skewness()-Z		FALSE
fBodyAcc.Jerk-kurtosis()-Z		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,8		FALSE
fBodyAcc.Jerk-bandsEnergy()-9,16		FALSE
fBodyAcc.Jerk-bandsEnergy()-17,24		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,32		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,40		FALSE
fBodyAcc.Jerk-bandsEnergy()-41,48		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,56		FALSE
fBodyAcc.Jerk-bandsEnergy()-57,64		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,16		FALSE
fBodyAcc.Jerk-bandsEnergy()-17,32		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,48		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,64		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,24		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,48		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,8_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-9,16_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-17,24_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,32_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,40_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-41,48_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,56_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-57,64_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,16_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-17,32_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,48_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,64_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,24_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,48_1		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,8_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-9,16_2		FALSE

original_name	new_name	retained
fBodyAcc.Jerk-bandsEnergy()-17,24_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,32_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,40_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-41,48_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,56_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-57,64_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,16_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-17,32_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-33,48_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-49,64_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-1,24_2		FALSE
fBodyAcc.Jerk-bandsEnergy()-25,48_2		FALSE
fBodyGyro-mean()-X	freqdomainBodyGyroscope-mean()-X	TRUE
fBodyGyro-mean()-Y	freqdomainBodyGyroscope-mean()-Y	TRUE
fBodyGyro-mean()-Z	freqdomainBodyGyroscope-mean()-Z	TRUE
fBodyGyro-std()-X	freqdomainBodyGyroscope-std()-X	TRUE
fBodyGyro-std()-Y	freqdomainBodyGyroscope-std()-Y	TRUE
fBodyGyro-std()-Z	freqdomainBodyGyroscope-std()-Z	TRUE
fBodyGyro-mad()-X		FALSE
fBodyGyro-mad()-Y		FALSE
fBodyGyro-mad()-Z		FALSE
fBodyGyro-max()-X		FALSE
fBodyGyro-max()-Y		FALSE
fBodyGyro-max()-Z		FALSE
fBodyGyro-min()-X		FALSE
fBodyGyro-min()-Y		FALSE
fBodyGyro-min()-Z		FALSE
fBodyGyro-sma()		FALSE
fBodyGyro-energy()-X		FALSE
fBodyGyro-energy()-Y		FALSE
fBodyGyro-energy()-Z		FALSE
fBodyGyro-iqr()-X		FALSE
fBodyGyro-iqr()-Y		FALSE
fBodyGyro-iqr()-Z		FALSE
fBodyGyro-entropy()-X		FALSE
fBodyGyro-entropy()-Y		FALSE
fBodyGyro-entropy()-Z		FALSE
fBodyGyro-maxInds-X		FALSE
fBodyGyro-maxInds-Y		FALSE
fBodyGyro-maxInds-Z		FALSE

original_name	new_name	retained
fBodyGyro-meanFreq()-X	freqdomainBodyGyroscope-meanFreq()-X	TRUE
fBodyGyro-meanFreq()-Y	freqdomainBodyGyroscope-meanFreq()-Y	TRUE
fBodyGyro-meanFreq()-Z	freqdomainBodyGyroscope-meanFreq()-Z	TRUE
fBodyGyro-skewness()-X		FALSE
fBodyGyro-kurtosis()-X		FALSE
fBodyGyro-skewness()-Y		FALSE
fBodyGyro-kurtosis()-Y		FALSE
fBodyGyro-skewness()-Z		FALSE
fBodyGyro-kurtosis()-Z		FALSE
fBodyGyro-bandsEnergy()-1,8		FALSE
fBodyGyro-bandsEnergy()-9,16		FALSE
fBodyGyro-bandsEnergy()-17,24		FALSE
fBodyGyro-bandsEnergy()-25,32		FALSE
fBodyGyro-bandsEnergy()-33,40		FALSE
fBodyGyro-bandsEnergy()-41,48		FALSE
fBodyGyro-bandsEnergy()-49,56		FALSE
fBodyGyro-bandsEnergy()-57,64		FALSE
fBodyGyro-bandsEnergy()-1,16		FALSE
fBodyGyro-bandsEnergy()-17,32		FALSE
fBodyGyro-bandsEnergy()-33,48		FALSE
fBodyGyro-bandsEnergy()-49,64		FALSE
fBodyGyro-bandsEnergy()-1,24		FALSE
fBodyGyro-bandsEnergy()-25,48		FALSE
fBodyGyro-bandsEnergy()-1,8_1		FALSE
fBodyGyro-bandsEnergy()-9,16_1		FALSE
fBodyGyro-bandsEnergy()-17,24_1		FALSE
fBodyGyro-bandsEnergy()-25,32_1		FALSE
fBodyGyro-bandsEnergy()-33,40_1		FALSE
fBodyGyro-bandsEnergy()-41,48_1		FALSE
fBodyGyro-bandsEnergy()-49,56_1		FALSE
fBodyGyro-bandsEnergy()-57,64_1		FALSE
fBodyGyro-bandsEnergy()-1,16_1		FALSE
fBodyGyro-bandsEnergy()-17,32_1		FALSE
fBodyGyro-bandsEnergy()-33,48_1		FALSE
fBodyGyro-bandsEnergy()-49,64_1		FALSE
fBodyGyro-bandsEnergy()-1,24_1		FALSE
fBodyGyro-bandsEnergy()-25,48_1		FALSE
fBodyGyro-bandsEnergy()-1,8_2		FALSE
fBodyGyro-bandsEnergy()-9,16_2		FALSE
fBodyGyro-bandsEnergy()-17,24_2		FALSE
fBodyGyro-bandsEnergy()-25,32_2		FALSE
fBodyGyro-bandsEnergy()-33,40_2		FALSE
fBodyGyro-bandsEnergy()-41,48_2		FALSE
fBodyGyro-bandsEnergy()-49,56_2		FALSE
fBodyGyro-bandsEnergy()-57,64_2		FALSE
fBodyGyro-bandsEnergy()-1,16_2		FALSE
fBodyGyro-bandsEnergy()-17,32_2		FALSE
fBodyGyro-bandsEnergy()-33,48_2		FALSE
fBodyGyro-bandsEnergy()-49,64_2		FALSE
fBodyGyro-bandsEnergy()-1,24_2		FALSE
fBodyGyro-bandsEnergy()-25,48_2		FALSE
fBodyAccMag-mean()	freqdomainBodyAccelerometerMag-mean()	TRUE

original_name	new_name	retained
fBodyAccMag-std()	freqdomainBodyAccelerometerMag-std()	TRUE
fBodyAccMag-mad()		FALSE
fBodyAccMag-max()		FALSE
fBodyAccMag-min()		FALSE
fBodyAccMag-sma()		FALSE
fBodyAccMag-energy()		FALSE
fBodyAccMag-iqr()		FALSE
fBodyAccMag-entropy()		FALSE
fBodyAccMag-maxInds		FALSE
fBodyAccMag-meanFreq()	freqdomainBodyAccelerometerMag-meanFreq()	TRUE
fBodyAccMag-skewness()		FALSE
fBodyAccMag-kurtosis()		FALSE
fBodyBodyAccJerkMag-mean()	freqdomainBodyBodyAccelerometerJerkMag-mean()	TRUE
fBodyBodyAccJerkMag-std()	freqdomainBodyBodyAccelerometerJerkMag-std()	TRUE
fBodyBodyAccJerkMag-mad()		FALSE
fBodyBodyAccJerkMag-max()		FALSE
fBodyBodyAccJerkMag-min()		FALSE
fBodyBodyAccJerkMag-sma()		FALSE
fBodyBodyAccJerkMag-energy()		FALSE
fBodyBodyAccJerkMag-iqr()		FALSE
fBodyBodyAccJerkMag-entropy()		FALSE
fBodyBodyAccJerkMag-maxInds		FALSE
fBodyBodyAccJerkMag-meanFreq()	freqdomainBodyBodyAccelerometerJerkMag-meanFreq()	TRUE
fBodyBodyAccJerkMag-skewness()		FALSE
fBodyBodyAccJerkMag-kurtosis()		FALSE
fBodyBodyGyroMag-mean()	freqdomainBodyBodyGyroscopeMag-mean()	TRUE
fBodyBodyGyroMag-std()	freqdomainBodyBodyGyroscopeMag-std()	TRUE
fBodyBodyGyroMag-mad()		FALSE
fBodyBodyGyroMag-max()		FALSE
fBodyBodyGyroMag-min()		FALSE
fBodyBodyGyroMag-sma()		FALSE
fBodyBodyGyroMag-energy()		FALSE
fBodyBodyGyroMag-iqr()		FALSE
fBodyBodyGyroMag-entropy()		FALSE
fBodyBodyGyroMag-maxInds		FALSE
fBodyBodyGyroMag-meanFreq()	freqdomainBodyBodyGyroscopeMag-meanFreq()	TRUE
fBodyBodyGyroMag-skewness()		FALSE
fBodyBodyGyroMag-kurtosis()		FALSE
fBodyBodyGyroJerkMag-mean()	freqdomainBodyBodyGyroscopeJerkMag-mean()	TRUE
fBodyBodyGyroJerkMag-std()	freqdomainBodyBodyGyroscopeJerkMag-std()	TRUE
fBodyBodyGyroJerkMag-mad()		FALSE
fBodyBodyGyroJerkMag-max()		FALSE
fBodyBodyGyroJerkMag-min()		FALSE
fBodyBodyGyroJerkMag-sma()		FALSE
fBodyBodyGyroJerkMag-energy()		FALSE
fBodyBodyGyroJerkMag-iqr()		FALSE
fBodyBodyGyroJerkMag-entropy()		FALSE
fBodyBodyGyroJerkMag-maxInds		FALSE
fBodyBodyGyroJerkMag-meanFreq()	freqdomainBodyBodyGyroscopeJerkMag-meanFreq()	TRUE
fBodyBodyGyroJerkMag-skewness()		FALSE

original_name	new_name	retained
fBodyBodyGyroJerkMag-kurtosis()		FALSE
angle(tBodyAccMean,gravity)	angle(timedomainBodyAccelerometerMean,gravity)	TRUE
angle(tBodyAccJerkMean),gravityMean)	angle(timedomainBodyAccelerometerJerkMean),gravityMean)	TRUE
angle(tBodyGyroMean,gravityMean)	angle(timedomainBodyGyroscopeMean,gravityMean)	TRUE
angle(tBodyGyroJerkMean,gravityMean)	angle(timedomainBodyGyroscopeJerkMean,gravityMean)	TRUE
angle(X,gravityMean)	angle(X,gravityMean)	TRUE
angle(Y,gravityMean)	angle(Y,gravityMean)	TRUE
angle(Z,gravityMean)	angle(Z,gravityMean)	TRUE

## Study design

Please see the original data set for links to more information about this study.