

Codebook

The units for all measurements (that is, all columns except for Subject and Activity) are multiples of the standard acceleration of 1g ($\sim 9.81 \text{ m/s}^2$).

- Subject: The subject of the experiment, numbered from 1 to 30.
- Activity: Levels: LAYING SITTING STANDING WALKING WALKING_DOWNSTAIRS WALKING_UPSTAIRS
- tBodyAcc-mean()-X: Mean body linear acceleration in the X direction (time domain)
- tBodyAcc-mean()-Y: Mean body linear acceleration in the Y direction (time domain)
- tBodyAcc-mean()-Z: Mean body linear acceleration in the Z direction (time domain)
- tBodyAcc-std()-X: Standard deviation of body linear acceleration in the X direction (time domain)
- tBodyAcc-std()-Y: Standard deviation of body linear acceleration in the Y direction (time domain)
- tBodyAcc-std()-Z: Standard deviation of body linear acceleration in the Z direction (time domain)
- tGravityAcc-mean()-X: Mean gravity acceleration in the X direction (time domain)
- tGravityAcc-mean()-Y: Mean gravity acceleration in the Y direction (time domain)
- tGravityAcc-mean()-Z: Mean gravity acceleration in the Z direction (time domain)
- tGravityAcc-std()-X: Standard deviation of gravity acceleration in the X direction (time domain)
- tGravityAcc-std()-Y: Standard deviation of gravity acceleration in the Y direction (time domain)
- tGravityAcc-std()-Z: Standard deviation of gravity acceleration in the Z direction (time domain)
- tBodyAccJerk-mean()-X: Mean body acceleration jerk in the X direction (time domain)
- tBodyAccJerk-mean()-Y: Mean body acceleration jerk in the Y direction (time domain)
- tBodyAccJerk-mean()-Z: Mean body acceleration jerk in the Z direction (time domain)
- tBodyAccJerk-std()-X: Standard deviation of body acceleration jerk in the X direction (time domain)
- tBodyAccJerk-std()-Y: Standard deviation of body acceleration jerk in the Y direction (time domain)
- tBodyAccJerk-std()-Z: Standard deviation of body acceleration jerk in the Z direction (time domain)
- tBodyGyro-mean()-X: Mean body angular velocity in the X direction (time domain)
- tBodyGyro-mean()-Y: Mean body angular velocity in the Y direction (time domain)
- tBodyGyro-mean()-Z: Mean body angular velocity in the Z direction (time domain)
- tBodyGyro-std()-X: Standard deviation of body angular velocity in the X direction (time domain)
- tBodyGyro-std()-Y: Standard deviation of body angular velocity in the Y direction (time domain)
- tBodyGyro-std()-Z: Standard deviation of body angular velocity in the Z direction (time domain)
- tBodyGyroJerk-mean()-X: Mean body angular velocity jerk in the X direction (time domain)
- tBodyGyroJerk-mean()-Y: Mean body angular velocity jerk in the Y direction (time domain)
- tBodyGyroJerk-mean()-Z: Mean body angular velocity jerk in the Z direction (time domain)
- tBodyGyroJerk-std()-X: Standard deviation of body angular velocity jerk in the X direction (time domain)
- tBodyGyroJerk-std()-Y: Standard deviation of body angular velocity jerk in the Y direction (time domain)
- tBodyGyroJerk-std()-Z: Standard deviation of body angular velocity jerk in the Z direction (time domain)
- tBodyAccMag-mean(): Mean body linear acceleration magnitude (time domain)
- tBodyAccMag-std(): Standard deviation of body linear acceleration magnitude (time domain)
- tGravityAccMag-mean(): Mean gravity acceleration magnitude (time domain)
- tGravityAccMag-std(): Standard deviation of gravity acceleration magnitude (time domain)
- tBodyAccJerkMag-mean(): Mean body linear acceleration jerk magnitude (time domain)
- tBodyAccJerkMag-std(): Standard deviation of body linear acceleration jerk magnitude (time domain)
- tBodyGyroMag-mean(): Mean body angular velocity magnitude (time domain)
- tBodyGyroMag-std(): Standard deviation of body angular velocity magnitude (time domain)

- tBodyGyroJerkMag-mean(): Mean body angular velocity jerk magnitude (time domain)
- tBodyGyroJerkMag-std(): Standard deviation of body angular velocity jerk magnitude (time domain)
- fBodyAcc-mean()-X: Mean body linear acceleration in the X direction (frequency domain)
- fBodyAcc-mean()-Y: Mean body linear acceleration in the Y direction (frequency domain)
- fBodyAcc-mean()-Z: Mean body linear acceleration in the Z direction (frequency domain)
- fBodyAcc-std()-X: Standard deviation of body linear acceleration in the X direction (frequency domain)
- fBodyAcc-std()-Y: Standard deviation of body linear acceleration in the Y direction (frequency domain)
- fBodyAcc-std()-Z: Standard deviation of body linear acceleration in the Z direction (frequency domain)
- fBodyAccJerk-mean()-X: Mean body acceleration jerk in the X direction (frequency domain)
- fBodyAccJerk-mean()-Y: Mean body acceleration jerk in the Y direction (frequency domain)
- fBodyAccJerk-mean()-Z: Mean body acceleration jerk in the Z direction (frequency domain)
- fBodyAccJerk-std()-X: Standard deviation of body acceleration jerk in the X direction (frequency domain)
- fBodyAccJerk-std()-Y: Standard deviation of body acceleration jerk in the Y direction (frequency domain)
- fBodyAccJerk-std()-Z: Standard deviation of body acceleration jerk in the Z direction (frequency domain)
- fBodyGyro-mean()-X: Mean body angular velocity in the X direction (frequency domain)
- fBodyGyro-mean()-Y: Mean body angular velocity in the Y direction (frequency domain)
- fBodyGyro-mean()-Z: Mean body angular velocity in the Z direction (frequency domain)
- fBodyGyro-std()-X: Standard deviation of body angular velocity in the X direction (frequency domain)
- fBodyGyro-std()-Y: Standard deviation of body angular velocity in the Y direction (frequency domain)
- fBodyGyro-std()-Z: Standard deviation of body angular velocity in the Z direction (frequency domain)
- fBodyAccMag-mean(): Mean body linear acceleration magnitude (frequency domain)
- fBodyAccMag-std(): Standard deviation of body linear acceleration magnitude (frequency domain)
- fBodyBodyAccJerkMag-mean(): Mean body linear acceleration jerk magnitude (frequency domain)
- fBodyBodyAccJerkMag-std(): Standard deviation of body linear acceleration jerk magnitude (frequency domain)
- fBodyBodyGyroMag-mean(): Mean body angular velocity magnitude (frequency domain)
- fBodyBodyGyroMag-std(): Standard deviation of body angular velocity magnitude (frequency domain)
- fBodyBodyGyroJerkMag-mean(): Mean body angular velocity jerk magnitude (frequency domain)
- fBodyBodyGyroJerkMag-std(): Standard deviation of body angular velocity jerk magnitude (frequency domain)
- angle(tBodyAccMean,gravity): Angle of body linear acceleration mean to gravity
- angle(tBodyAccJerkMean,gravityMean): Angle of body linear acceleration jerk mean to gravity mean
- angle(tBodyGyroMean,gravityMean): Angle of body angular velocity mean to gravity mean
- angle(tBodyGyroJerkMean,gravityMean): Angle of body angular velocity jerk mean to gravity mean
- angle(X,gravityMean): Angle of gravity mean to the X direction
- angle(Y,gravityMean): Angle of gravity mean to the Y direction
- angle(Z,gravityMean): Angle of gravity mean to the Z direction