**S2 Table**. **Continuous Encoding of formulas for accelerometer sensor features.**

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| Variable Name | Explanation | Formula |
| ENMOtrunc | truncated Euclidean Norm Minus One |  |
| ENMOabs | absolute Euclidean Norm Minus One |  |
| Mean (xMean, yMean, zMean) | Mean of vector magnitude(x / y / z axis) | () |
| Sd(xSd, ySd, zSd) | Standard deviation of vector magnitude (x / y / z axis) |  |
| RMS(xRMS, yRMS, zRMS) | Root Mean Square | () |
| TAC(xTAC, yTAC, zTAC) | Total Activity | (） |
| MCR(xMCR, yMCR, zMCR) | Mean Cross Rate |  |
| MMCR(xMMCR, yMMCR, zMMCR) | Maximum and Minimum Average Cross Rate |  |
| MAD | Mean Amplitude Deviation |  |
| MPD | Mean Power Deviation |  |
| Min(xMin, yMin, zMin) | Minimum of vector | () |
| 25thp(x25thp, y25thp, z25thp) | 0.25 percentile | 25% rank of (25% rank of ) |
| Median(xMedian, yMedian, zMedian) | median | 50% rank of (50% rank of ) |
| 75thp(x75thp, y75thp, z75thp) | 0.75 percentile | 75% rank of (75% rank of ) |
| Max(xMax, yMax, zMax) | maximum | () |
| xRange / yRange / zRange | Range of x / y / z axis |  |