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Kahn et al.

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- (54) **HUMAN ACTIVITY MONITORING DEVICE** 5,976,083 A 11/1999 Richardson et al.
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- (*) Notice: Subject to any disclaimer, the term of this
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G06F 19/00 (2006.01)

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33/701; 73/1.01, 1.37, 1.38, 1.75, 1.76, 1.77,
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377/24, 24.1, 24.2; 702/1, 85, 97, 127, 141,
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See application file for complete search history.

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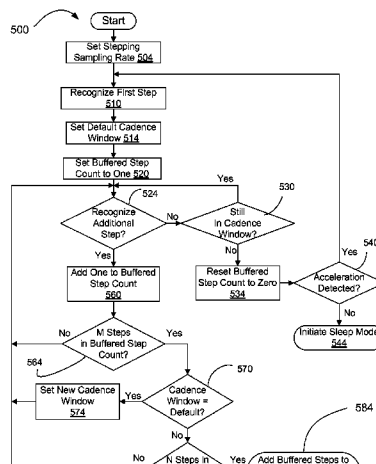
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(57) **ABSTRACT**

A method for monitoring human activity using an inertial
sensor includes continuously determining an orientation of
the inertial sensor, assigning a dominant axis, updating the
dominant axis as the orientation of the inertial sensor
changes, and counting periodic human motions by monitor-
ing accelerations relative to the dominant axis.

11 Claims, 9 Drawing Sheets



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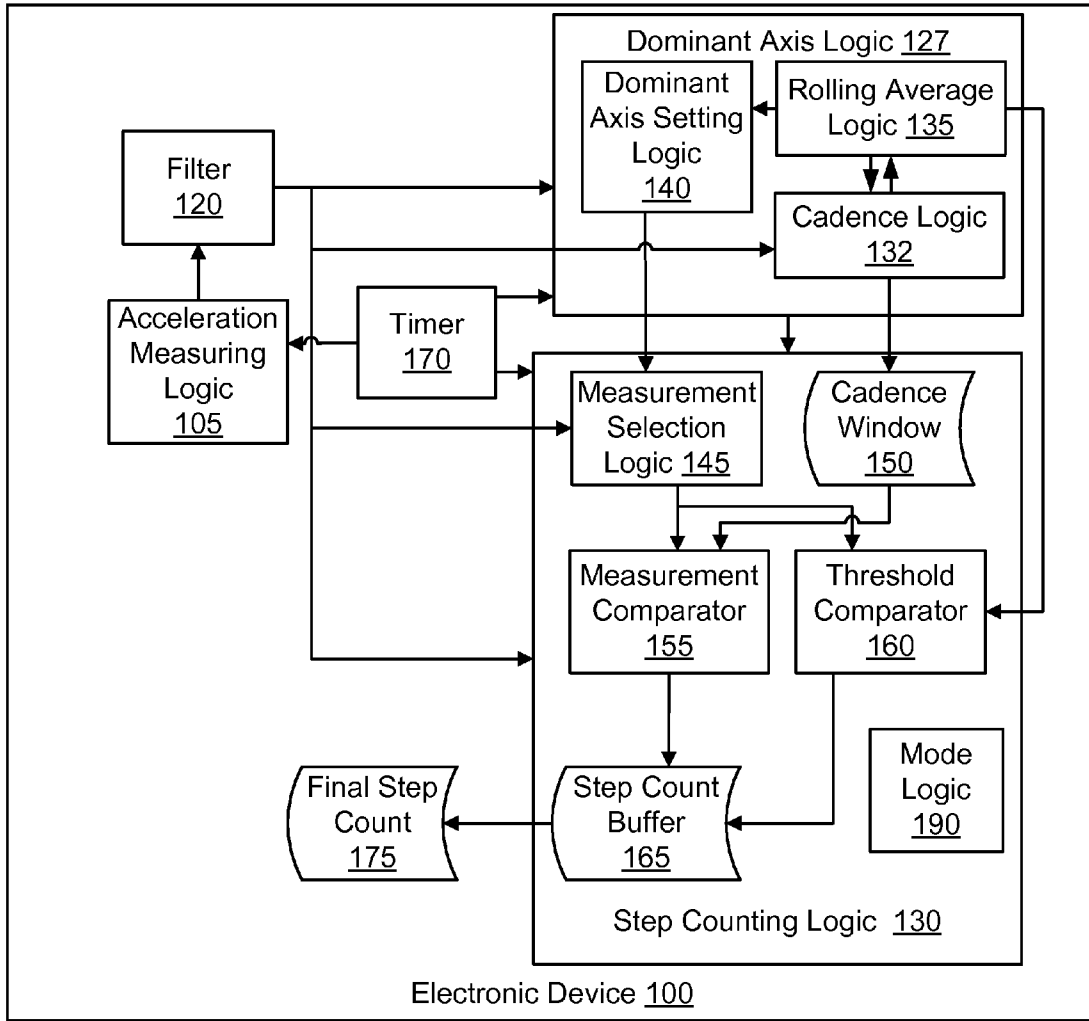


Figure 1

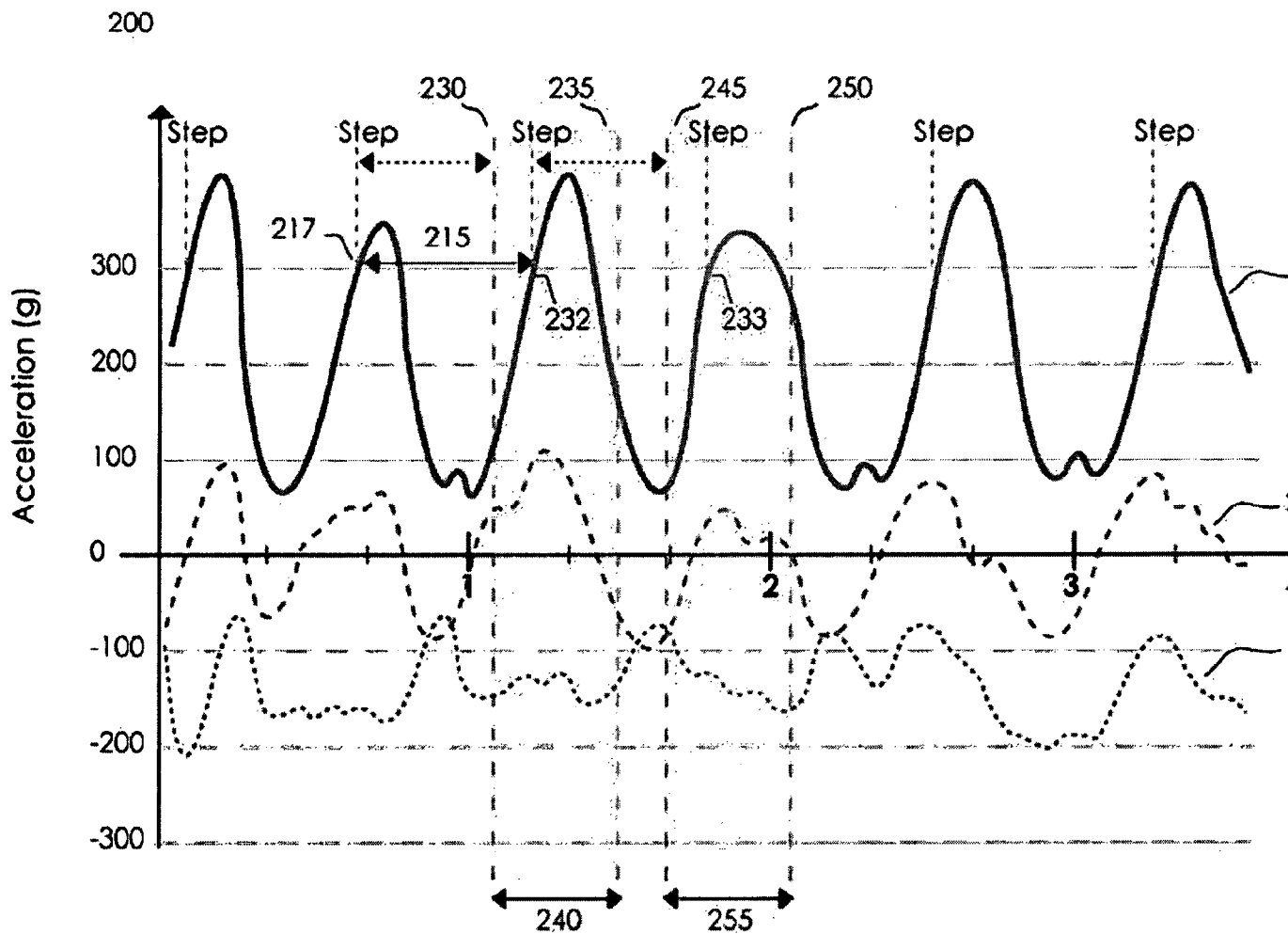


Figure 2

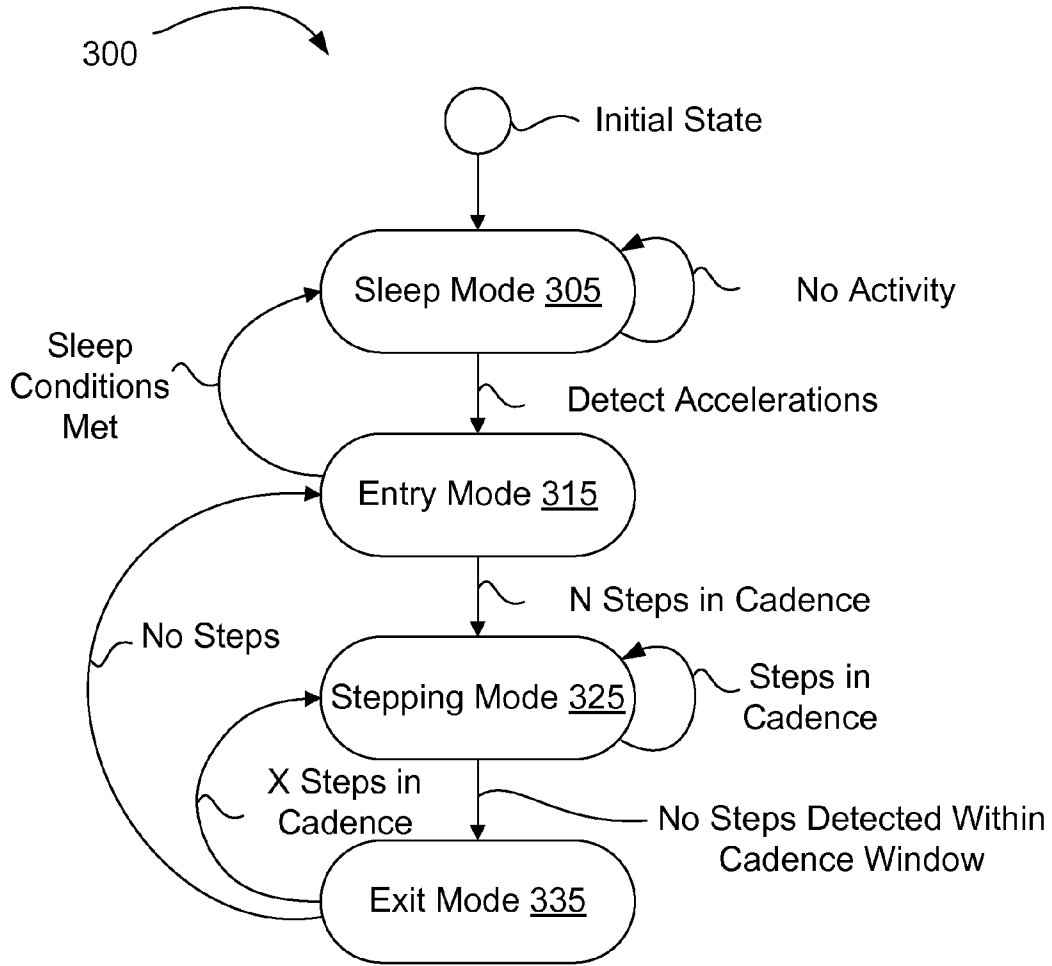


Figure 3

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