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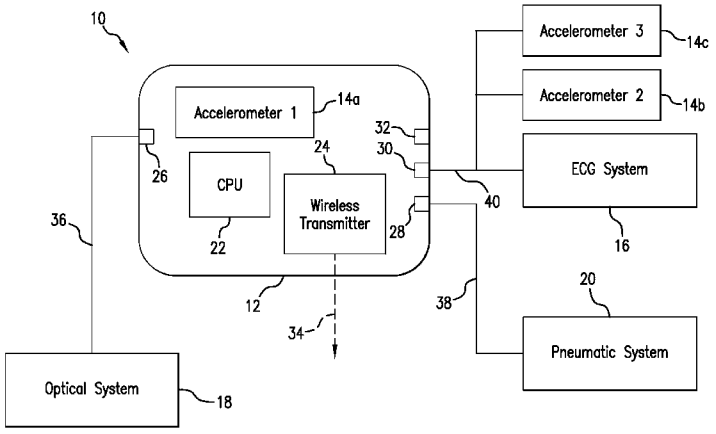


FIG. 1

(57) Abstract: A system and method for measuring vital signs and motion from a patient. It comprises first and second sensors configured to independently generate time-dependent waveforms indicative of one or more contractile properties of the patient's heart; and at least three motion-detecting sensors positioned on the forearm, upper arm, and a body location other than the forearm or upper arm of the patient. Each motion-detecting sensor generates at least one waveform indicative of motion of the location on the patient's body to which it is affixed. A processing processor receives the time-dependent waveforms generated by the different sensors and processes them to determine: a pulse transit time calculated using a time difference between features in two separate time-dependent waveforms; a blood pressure value calculated from the time difference, and a motion parameter calculated from at least one motion waveform.

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