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(71) Applicant: **UNIVERSAL CITY STUDIOS LLC**
[US/US]: 100 Universal City Plaza, Universal City, CA
91608 (US).

(72) Inventors: **WILLIAMS, Thomas, Owen**; c/o Universal
City Studios LLC, 1000 Universal Studios Plaza, Orlando,
FL 32819 (US). **BURNETTE, Brandon, David**; c/o Uni-
versal City Studios LLC, 1000 Universal Studios Plaza, Or-
lando, FL 32819 (US). **GOERGEN, Patrick, John**; c/o
Universal City Studios LLC, 1000 Universal Studios Plaza,
Orlando, FL 32819 (US).

(74) Agent: **MACAPAGAL, Lew, Edward, V.**; Loza & Loza,
LLP, 305 N. Second Ave., #127, Upland, CA 91786 (US).

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(54) Title: THEREMIN-BASED TRACKING AND TRIGGERING

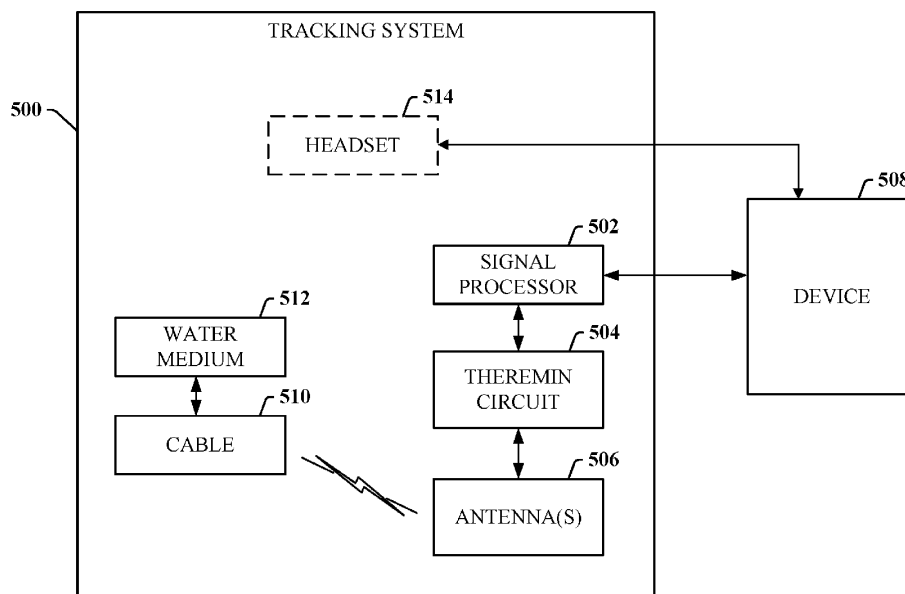


FIG. 5

(57) Abstract: Aspects of the disclosure relate to methods, apparatus, and systems for tracking a presence of a body part via a theremin-based sensor and outputting a usable signal. For example, a tracking system includes a signal processor and a theremin circuit including at least one antenna. The theremin circuit detects a varying position of a body part relative to the at least one antenna and outputs an analog signal to the signal processor having a varying frequency or amplitude based on the varying position of the body part relative to the at least one antenna. The digital processor determines a rate of change of the varying frequency or amplitude of the analog signal, determines at least a velocity of the body part based on the rate of change, and outputs a digital signal corresponding to at least the velocity to a system or device coupled to the theremin-based tracking system.

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