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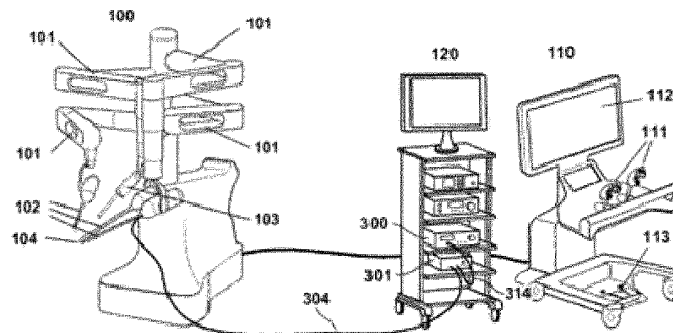


Fig. 1

(57) Abstract: The present invention proposes a sensory perception system for robot-assisted laparoscopic surgery. The invention comprises an electrosurgical forceps coupled to a surgical tool, an electrocautery radiofrequency signal generator and an impedance measurement circuit. The latter includes a measurement sensor for measuring a signal indicative of a magnitude corresponding to the value of contact impedance between the forceps and a patient's tissue; an oscillator; a first electrical circuit with resistors and a voltage limiter for protecting the measurement sensor and the oscillator; and a second electronic circuit with switches. The sensor and the oscillator are connected to the forceps by means of a power cable of the surgical tool. A processor connected to the measurement circuit receives said measured signal and converts same into a force vector, the modulus of which is a function of the contact impedance being measured and the argument is a function of the trajectory being followed.

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