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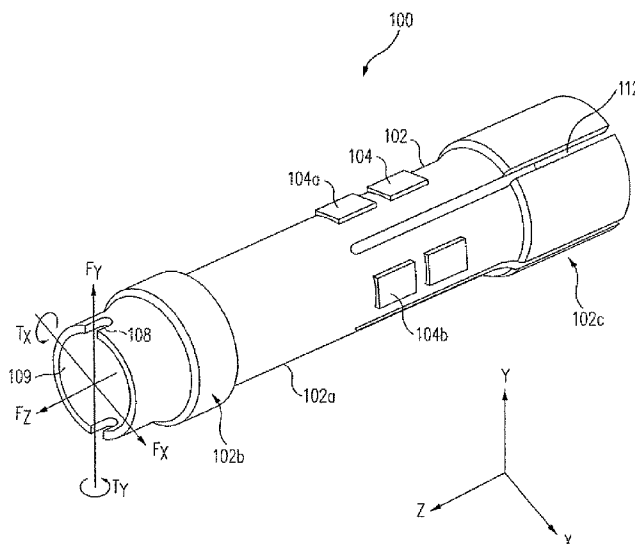
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(54) Title: MODULAR FORCE SENSOR



(57) Abstract: A modular force sensor apparatus, method, and system are provided to improve force and torque sensing and feedback to the surgeon performing a telerobotic surgery. In one embodiment, a modular force sensor includes a tube portion including a plurality of strain gauges, a proximal tube portion for operably coupling to a shaft of a surgical instrument that may be operably coupled to a manipulator arm of a robotic surgical system, and a distal tube portion for proximally coupling to a wrist joint coupled to an end portion.

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