

MOTOR-DRIVEN SURGICAL CUTTING AND FASTENING INSTRUMENT WITH ADAPTIVE USER FEEDBACK

ABSTRACT

A surgical cutting and fastening instrument is disclosed. According to various embodiments, the instrument includes an end effector, a main drive shaft assembly, and a handle. The end effector comprising a cutting instrument for cutting an object positioned therein. The handle comprises a motor for actuating the shaft via a gear drive train, a firing trigger, and a run motor sensor for sensing retracting of the firing trigger. When retraction of the firing trigger is sensed by the run motor sensor, the motor is signaled to forward rotate to cause cutting of the object positioned in the end effector by the cutting instrument. The instrument may also include a reverse motor sensor for sensing a condition indicative of an end of a cutting stroke by the cutting instrument and a stop motor sensor for sensing a condition indicative of retraction of the cutting instrument.

FIGURE 1