

Abstract

Surgical devices (100, 200), systems, and methods are disclosed. The system may include an end-effector assembly (140, 240). The end-effector assembly (140, 240) may comprise an instrument assembly and a wrist assembly. (instrument assembly may comprise an instrument (142, 242, 144, 244) for performing a surgical action. The instrument assembly may further comprise an instrument driven portion (142a, 242a, 144a, 244a) configurable to be driven in such a way as to move the instrument (142, 242, 144, 244) relative to a first axis (A). The instrument assembly may further comprise an instrument insulative portion (142b, 242b, 144b, 244b) providable between the instrument (142, 242, 144, 244) and the instrument driven portion (142a, 242a, 144a, 244a). The instrument insulative portion (142b, 242b, 144b, 244b) may be configurable to electrically isolate the instrument (142, 242, 144, 244) from at least the instrument driven portion (142a, 242a, 144a, 244a) when the instrument insulative portion (142b, 242b, 144b, 244b) is provided between the instrument (142, 242, 144, 244) and the instrument driven portion (142a, 242a, 144a, 244a). The wrist assembly may include a wrist driven portion (146a, 246a) configurable to be driven in such a way as to move the instrument (142, 242, 144, 244) relative to a second axis (B).

[Figure 4A]