

# **RIGIDIZABLE INSERTION TOOL WITH PNEUMATICALLY DRIVEN END EFFECTOR**

## **ABSTRACT**

An insertion tool is provided. The tool includes a flexible section a rigidization actuator configured to actuate the flexible section between a rigidized state and a relaxed state, wherein in the rigidized state, a fluid path is formed within the flexible section, an end effector coupled to the flexible section, and an end effector actuator comprising at least one pneumatic turbine configured to transform fluid force of a fluid from the fluid path into torque to drive a rotation of the end effector.

[Figure 6]