Existing Solution Document

Problem and Existing solution title

Astronauts experiencing muscle discomfort or strain,Lack of feeling ability in unpressurized environment,Lack of continuous power to lift heavy components; Robo-Glove.

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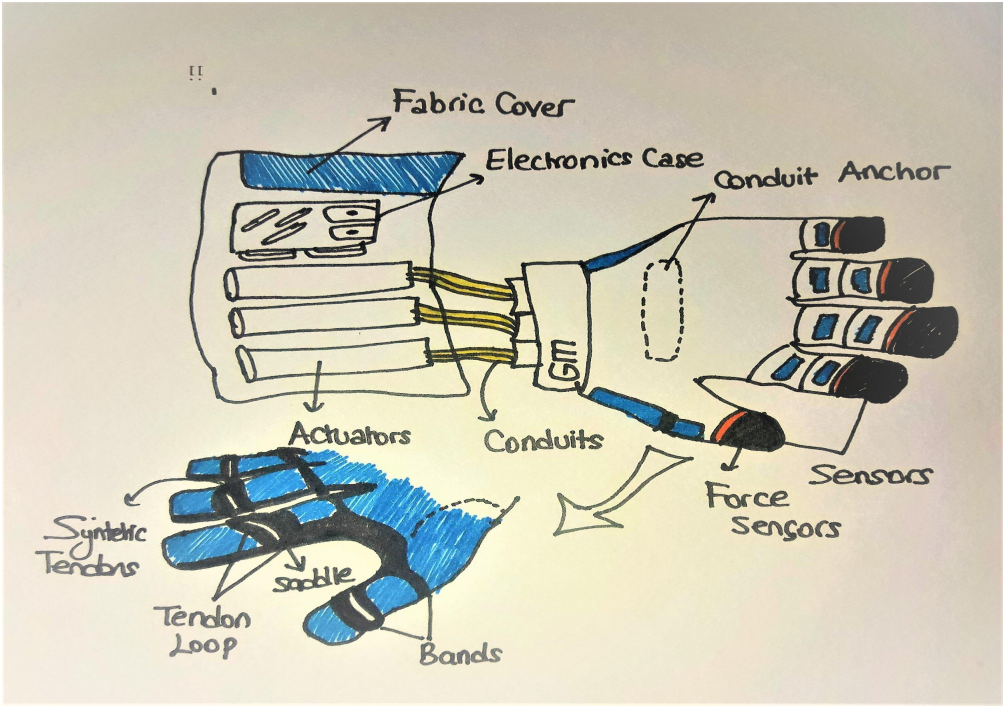
Description

Researchers at the NASA Johnson Space Center (JSC) in collaboration with General Motors (GM) have designed and developed Robo-Glove, a wearable human grasp assist device, to help reduce the grasping force needed by an individual to operate tools for an extended time or when performing tasks having repetitive motion.This wearable device allows the user to tightly grip tools and other items for longer periods of time without experiencing muscle discomfort or strain.The Robo-Glove is a self-contained unit, essentially a robot on your hand, with actuators embedded into the glove that provide grasping support to human fingers.GM Tries RoboGlove, 3D-Printed Parts at Assembly Plants

1. The pressure sensors,sense of touch, are incorporated into the fingertips of the glove to detect when the user is grasping an object.
2. The user grasps the object.
3. The synthetic tendons automatically retract.
4. Pulling the fingers into a gripping position and holding them there until the sensor is released by releasing the object.

Illustration w.Keywords



References

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