

The following answers are based on information reported on <http://haptipedia.org>.

2.1

Phantom Premium 1.5 (3D Systems) has six degrees of freedom (3 translational, 3 rotational) that are both sensed and actuated. It has a medium-sized workspace that is 38.1 cm * 26.7 cm * 19.1 cm along the translational dimensions and 335° * 297° * 260° in the rotational space.

2.2

Virtuose 3D (Haption) has a serial mechanism since the links do not form any loop

Falcon (Novint Technologies) has a parallel structure. All the links are connected to the base and the end-effector, so you can find multiple loops in the link structure. This specific parallel structure is commonly used in haptics and is known as a Delta mechanism. You can find more information in the following link: https://en.wikipedia.org/wiki/Delta_robot

Rutgers Ankle (Girone et al., 1999) similarity has a parallel structure. This specific parallel structure is known as a Stewart structure. You can find more information about it here: https://en.wikipedia.org/wiki/Stewart_platform

Hapkit 3.0 (Orta Martinez et al., 2016) has a serial structure with two links (the base and the paddle) that are connected to together in a serial chain.

2.3.

Virtuose 3D (Haption) is complex to build as it has 3 degrees of freedom, needs to be machined, and it provides high-resolution input and output.

Falcon (Novint Technologies) has medium complexity since the device is made of plastic which can be 3D printed. The 3 degrees of freedom and parallel structure of the device adds to its complexity of construction.

Rutgers Ankle (Girone et al., 1999) is complex to build as it has high degrees of freedom (6 DoF), it is parallel, and it uses metal components that need to be machined.

Hapkit 3.0 (Orta Martinez et al., 2016) is simple to build with one degree of freedom, serial structure, and 3D-printed parts.