

FS8 IVA Suit Glove Touch Screen Capabilities Verified

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Suit: FS8

Glove: IVA

Overview: Touchscreens are used throughout space applications, from flight controls to experiment tracking and observation. We would like to better understand the capabilities of the FS8 IVA suit and gloves. Generally, gloves can be tailored to include fabrics which are conductive to engage with touchscreens. This capability normally would want to be placed on the index distal phalanx finger pad area of either hand or anywhere a user would wish to interface with their device.

Conclusion: For this demonstration we use both the standard fabric of the outer IVA glove as well as a conductive fabric tape placed on the index finger. Without the conductive tape the glove fingertip seam disallows full conductive contact and user tap selection. However, when the full index distal phalanx finger pad is placed flush on the screen, selection is nominal. Introduction of conductive material to the fingertip and finger pad allows nominal user selections. It's recommended that for further glove demonstrations or operations using touch screens to include conductive fabric/thread or similar at the index finger tips and pads.

Photos



Figure 1 Full IVA glove



Figure 2 Index finger pad without (left) and with (right) conductive fabric tape



Figure 3 Fingertip fabric sewn seams circled in red



Figure 4 When gloved finger taps touchscreen with fingertip, there is no response on the screen

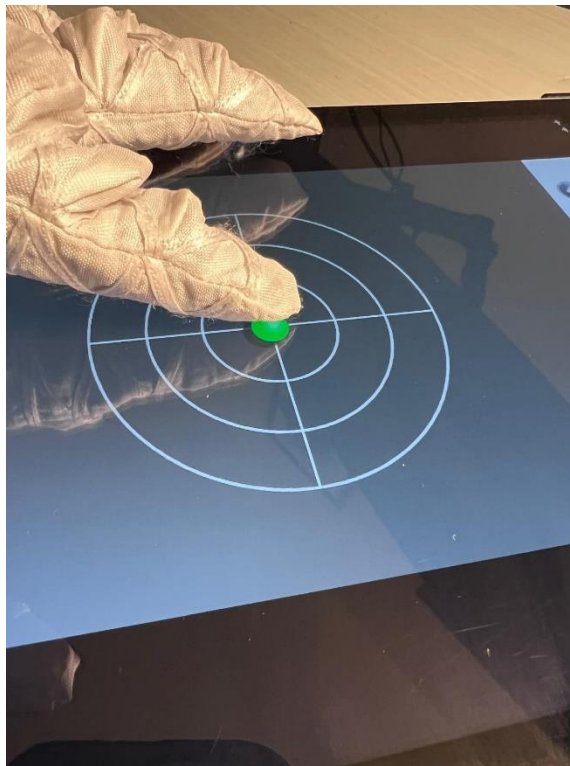


Figure 5 With full finger pad touching flush, user selection is normal

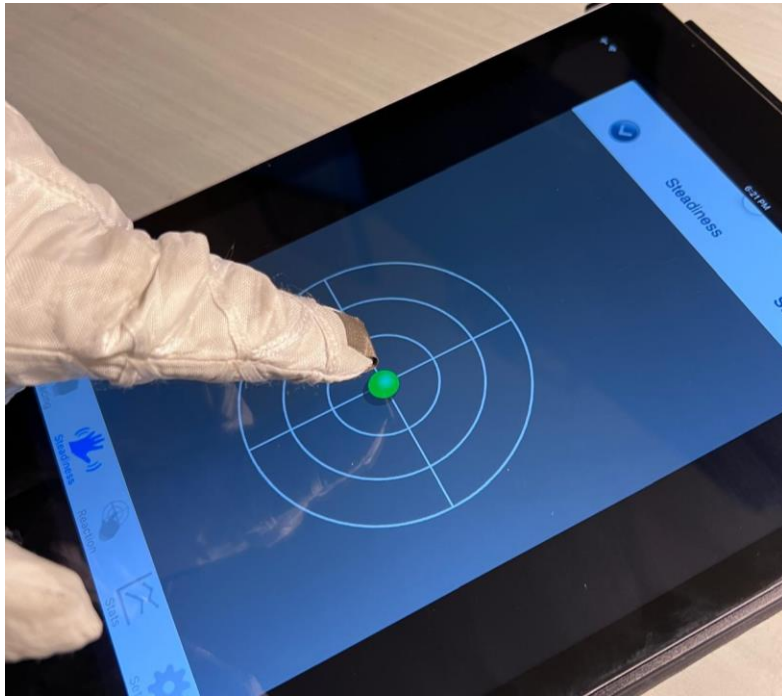


Figure 6 With conductive fabric tape on finger, selection is normal in both the fingertip position and finger pad position