Knitted-glove-type touch sensor continuously operatable without external power supply

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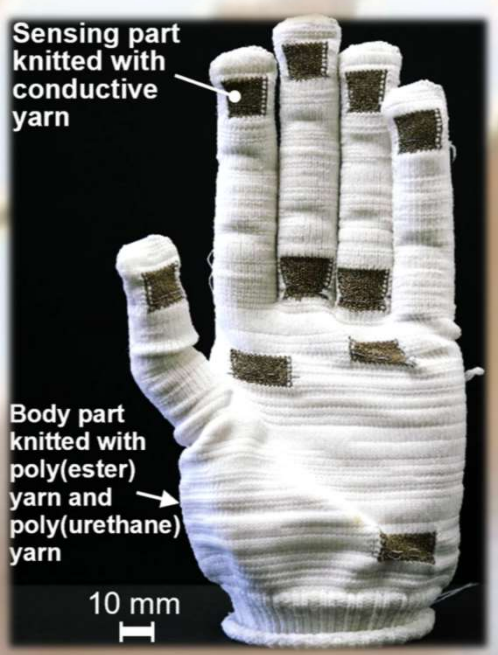
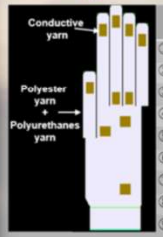


Yarns and knitting

Knitting conditions



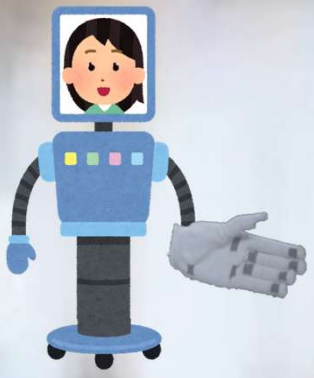
Area	Wales	Width (cm)	Courses	Width (cm)
①Little finger	16	1.7	108	8.0
②Ring finger	16	1.7	121	9.0
③Middle finger	16	1.7	132	9.8
④Index finger	16	1.7	121	9.0
⑤Thumb	17	1.8	87	6.5
⑥Three cylinder	44	4.6	0	0
⑦Four cylinder	58	6.1	41	3.0
⑧Five cylinder	73	7.7	89	6.5
⑨Wrist	68	7.2	27	2.0

Density 85 course/10.0cm
127 wales/10.0cm

Simultaneous touch sensing at 10 conductive yarn areas
Producible with a single process knitting

The sensor can be used in following situations!

Handshake with Vtubers

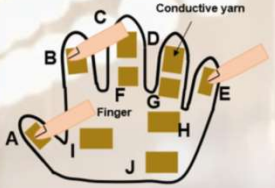


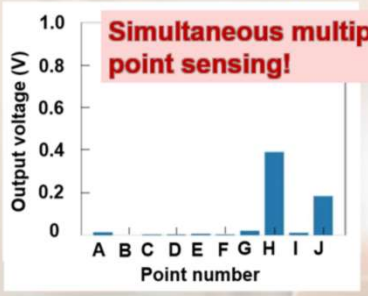
Remote Reception

Communication with Pet Robots

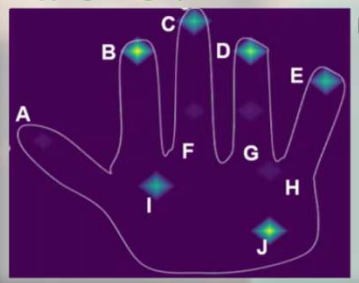
Touch Sensors for Automated Vehicles

Output voltage when fingers touch multiple conductive yarn areas at the same time

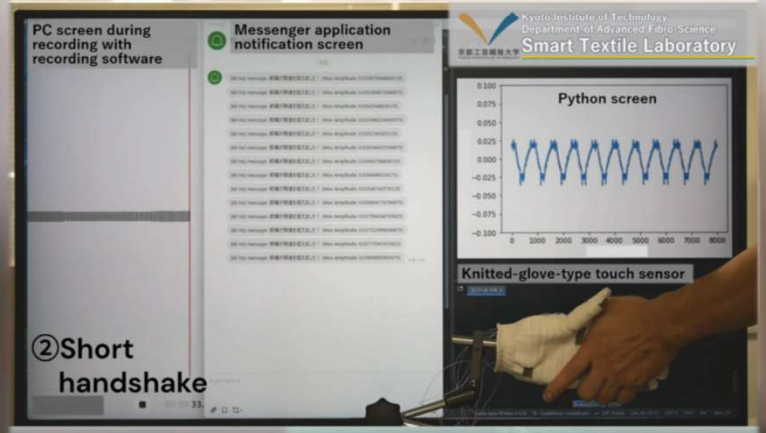




Mapping using Python



Visualization of position and timing of person's touch



Automatic notification to a messenger application when a person shakes hands with the developed knitted-glove-type touch sensor.

Shaking hand → Outputting electrical signal without power supply → Wireless transmission to PC with wireless microphone → Receiving in PC as sound → Threshold detection in Python programs → Notification to App

Introduction Movie!