

Table S1. Comparison of the Au strain sensor with the recently reported flexible strain sensor.

	Name	Sensitivity	Detection range	Size	Application	Reference
1	Au strain sensor	Gauge factor=4.1	0-20% strain	5 mm × 2 mm × 6.2 μm	Pulse rate recording, walking motion detection, human-machine interface.	This work
2	Wire-shaped sensor	Gauge factor=8.7	0–10% strain	0.24 mm × 0.24 mm × 40 mm	Finger motion sensing and blood pulse monitoring.	[51]
3	Polymer nanocomposite-based flexible strain sensor	Gauge factor=10	0–35% strain	30 mm × 10 mm	Human-machine interface.	[52]
4	Stretchable strain sensor	Gauge factor=1.25	0–120% strain	90 mm × 5 mm	Human-activity monitoring and recognition	[53]
5	Fabric-based strain sensors	Gauge factor=2.49	0–80% strain	40 mm × 10 mm	Finger bending detection	[54]
6	Flexible multifunctional piezoresistive sensor	Gauge factor=10	0–25% strain	40 mm × 10 mm × 0.3 mm	Human-Activity monitoring	[55]
7	Nickel-coated cotton fabrics strain sensor	Gauge factor=18	0–14% strain	20 mm × 10 mm	Finger bending detection	[56]