

Supporting Information

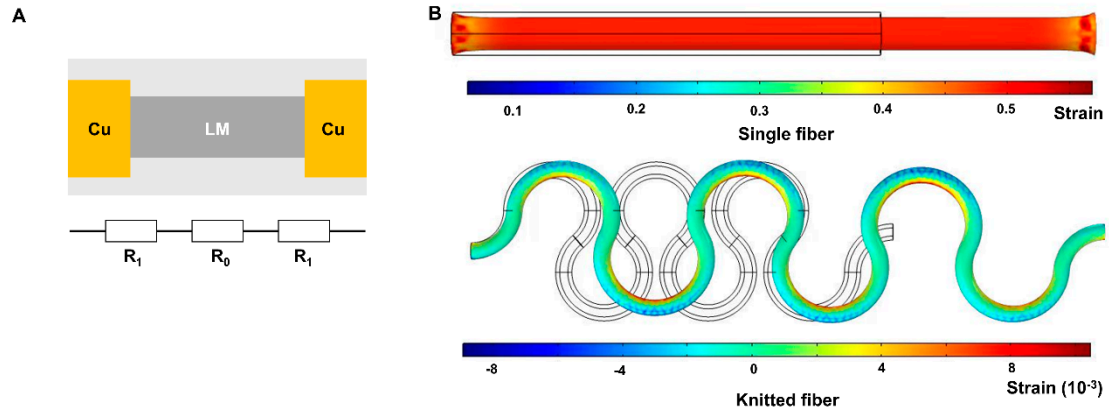


Figure S1. (A) Theoretical electrical model and (B) simulation results for two fibers.

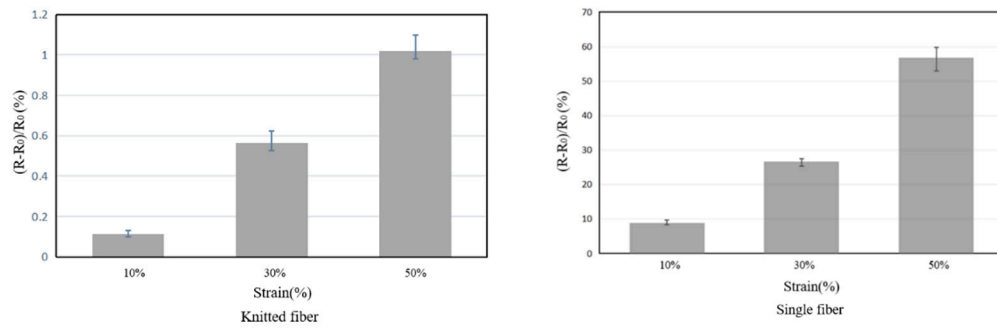


Figure S2 The error bars of the resistance rate for both the knitted liquid metal fibers and a single liquid metal fiber.

Table S1 The theoretical resistance values

	Strain	Area (A)	Length (L)	R_0	R_1
Single fiber	50%	$0.66 A_0$	$1.5 L_0$	$2.25 R_0$	$0.68 R_0$
Knitted fiber	50%	$0.99 A_0$	$1.01 L_0$	$1.02 R_0$	$0.485 R_0$

Table S2 Summary of performances of several studies on liquid metal fibers

Reference	Method and Materials	Max.stret chability	Resistance variation rate	Conductivity (S/m)
[17]	liquid metal mixed with Cu particles (Cu-EGaIn)	75%	37% at 20% strain	6×10^6
[18]	embed the patterned LMPs on the surface of polymers by casting and peeling off steps	500%	<3% with a strain of 50%	8×10^5
[26]	natural and synthetic fiber cores, and Cu-Ga-In coating	300%	5% at 100% strain	3.4×10^6
[15]	Microchannel injection	800%	> 10000%	3.4×10^6
This	Knitted Structure based on	50%	<1%	3.4×10^6

research microchannel injection
work
