Supplementary material

High-performance thermoelectric bracelet based on carbon nanotube ink printed directly onto flexible cable

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Fig. S1. Photograph of SWCNTs with hairy-like appearance used in this study.

Table S1. Thermoelectric properties of the pristine SWCNT used in this study

	Electrical conductivity (Scm^{-1})	Seebeck coefficient (μVK^{-1})	Power factor ($\mu Wm^{-1}K^{-2}$)
SWCNT	674	39.0	103

Table S2. Viscosity of the solvents tested in this work

Solvents	Viscosity (cP)
1,2 Dichlorobenzene (DCB)	1.32
N-Methyl-2-pyrrolidone (NMP)	1.67
Ethylene glycol (EG)	16.1
Diethylene glycol (DEG)	30.2

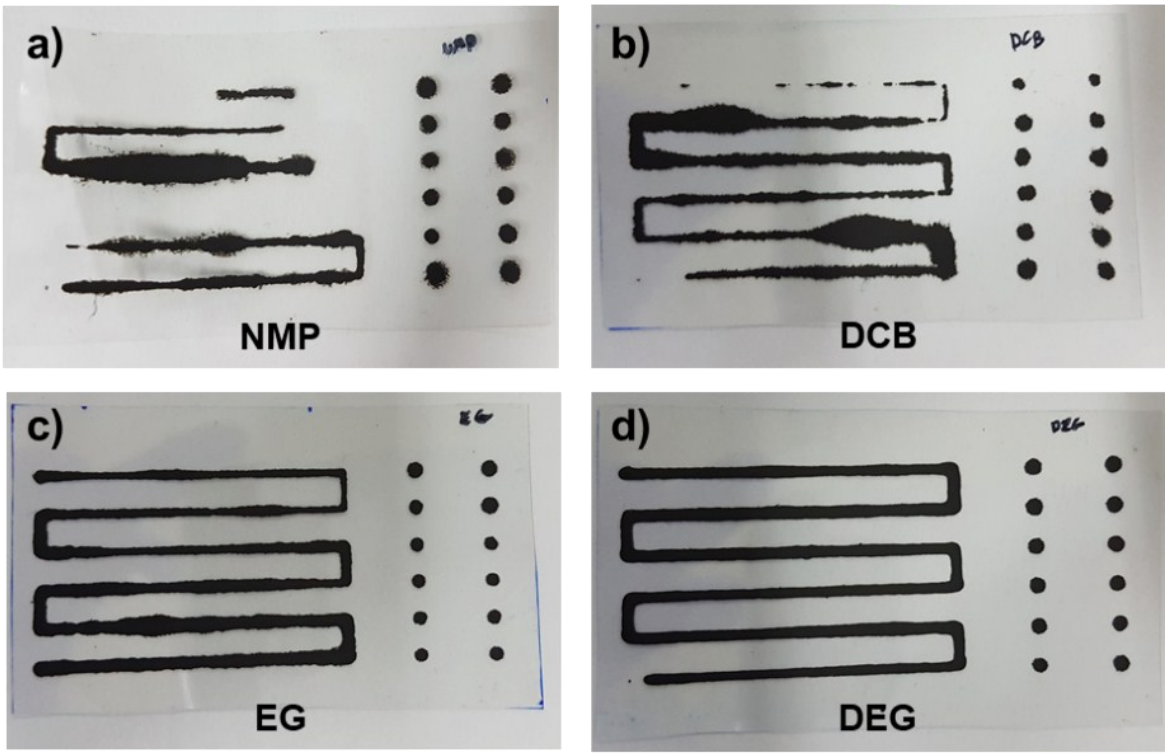

Fig. S2. Photographs showing the line and dot printing of CNT inks prepared in various solvents using ball milling (**(a)** NMP, **(b)** DCB, **(c)** EG and **(d)** DEG).

Table S3. Possible polymers to dope CNT into *n*- or *p*-type

polymer	molecular weight (K)	dopant type	solubility in DEG
Poly(vinylidene fluoride) (PVDF)	534	P	X
Polystyrene (PS)	280	P	X
Poly(vinyl alcohol) (PVA)	85	P	X
Poly(methyl methacrylate) (PMMA)	15	P	X
Poly(vinyl acetate)	100	P	X
Poly(acrylic acid) (PAA)	1.8	P	O
Poly(vinyl pyrrolidone) (PVP)	10	N	O
Poly(ethylenimine) (PEI)	0.8	N	O

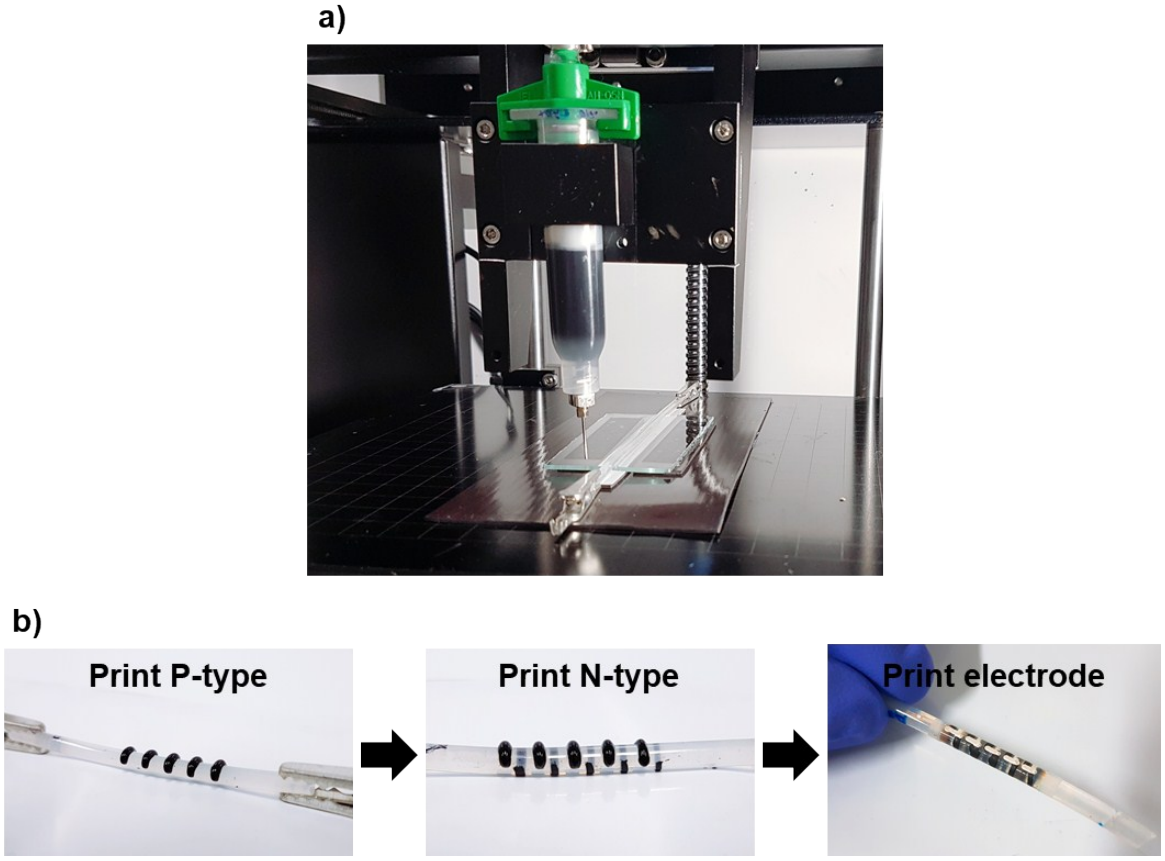

Fig. S3. Photograph showing **(a)** the automated printing setup and (b) the fabrication of bracelet-type TEG.

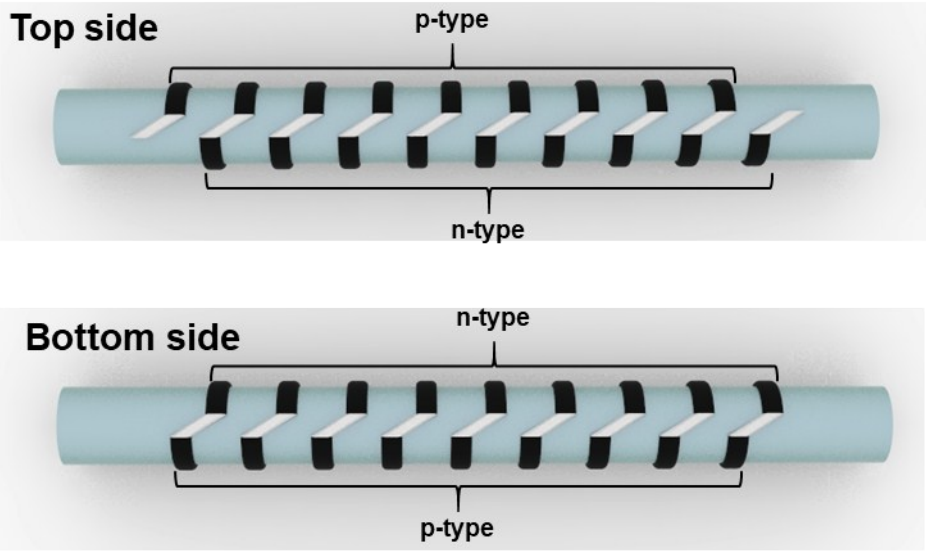

Fig. S4. Illustration showing details of how to connect *p*- and *n*-type legs in series.