

# Fast-Response Non-Contact Flexible Humidity Sensor Based on Direct-Writing Printing for Respiration Monitoring

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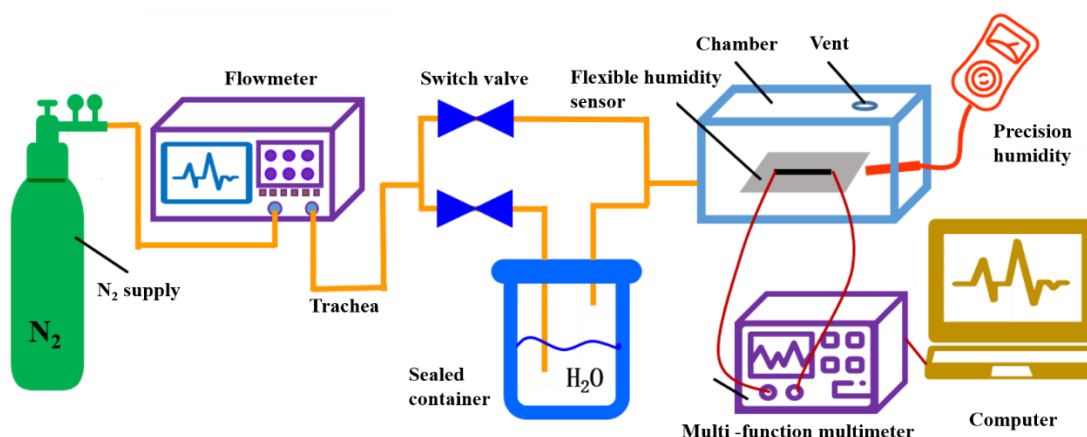


Figure S1. Humidity detection system.

Table S1. Summary of the characteristics of different humidity sensors.

Sensing type	Sensing material	substrate	Response/re-cover	sensitivity	Range of humidity
Resistive [1]	Silver nanowires	Polyimide	5 s/14 s	0.01 MΩ/%RH	11-95 %RH
Capacitive[2]	Graphene	Polyamide	1 s/1 s	57.36 pF/%RH	11-95 %RH
Resistive[3]	α-Fe2O3	Polyamide/polyurethane	4 s/8 s	1.16 MΩ/%RH	10-98 %RH
Capacitive[4]	GO/PEDOT:PSS	Polystyrene	1 s/5 s	0.076 pF/%RH	5-95 %RH
Resistive[5]	Cellulose nano-fiber/carbon black	Ag	10 s/6 s	43.2 pF/%RH	30-90 %RH
Resistive[6]	Silk fibroin/silver	PET	73.1 s/11.3 s	0.2 nA/%RH	N/A
This work	GNPS/MWCNT	PDMS	0.35 s/2.5 s	1.4 RH-1	20-90%RH

## Reference

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