

# Gas-Supported Triboelectric Nanogenerator Based on In Situ Gap-Generation Method for Biomechanical Energy Harvesting and Wearable Motion Monitoring

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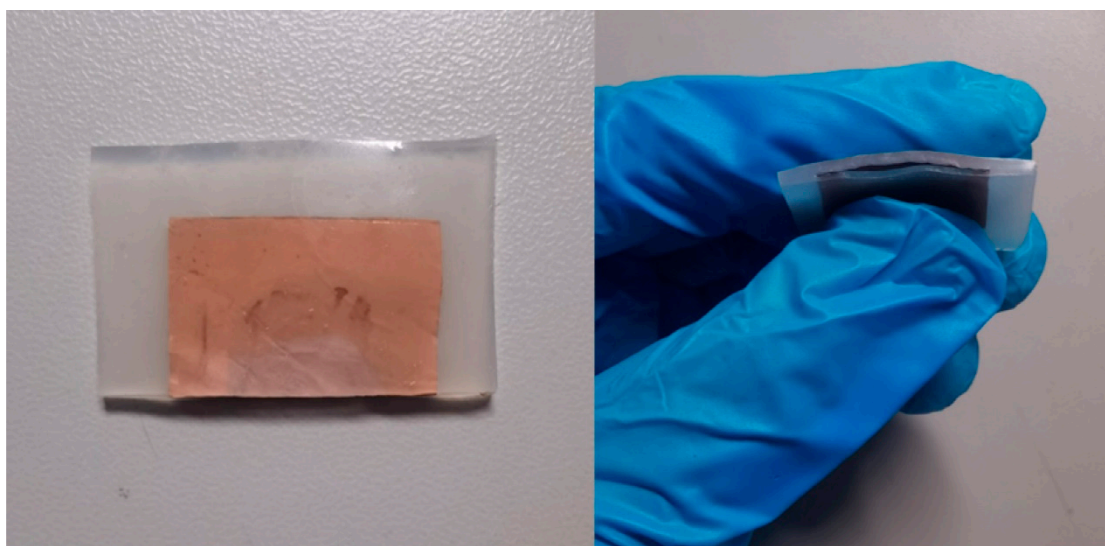
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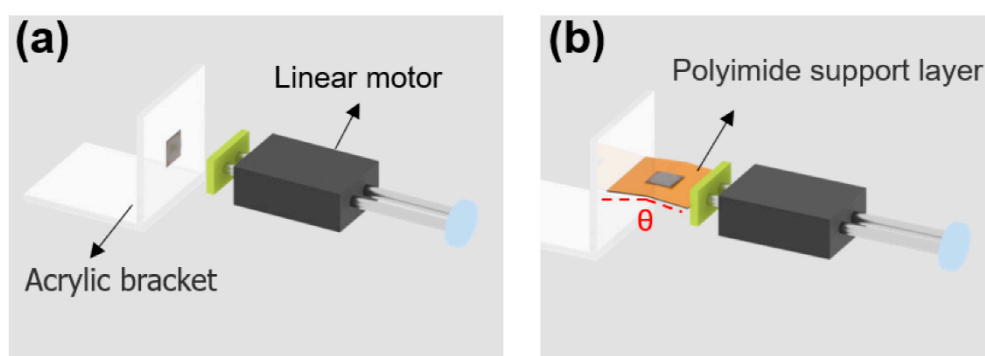
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**Figure S1.** The cross-sectional view of EPGS- TENG;  
**Figure S2.** The test platform;  
**Figure S3.** The response of output voltage of EPGS-TENG at different frequencies;  
**Figure S4.** The response of output voltage of EPGS-TENG at different angles;  
**Figure S5.** The response of output voltage of EPGS-TENG at different temperatures;  
**Figure S6.** The detail of durability test;  
**Figure S7.** The Bluetooth module for wireless transmission system.

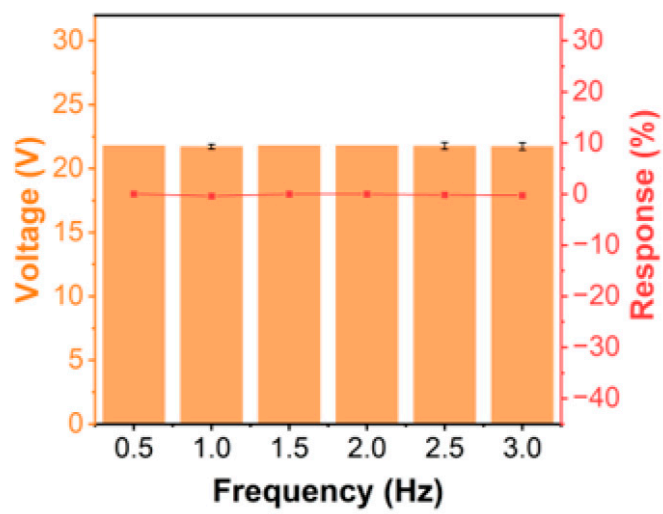
**Movie S1.** Demonstration of the gas support structure of the EPGS-TENG;  
**Movie S2.** EPGS-TENG lights 120 LEDs;  
**Movie S3.** Powering for an electronic watch;  
**Movie S4.** Powering for an electronic calculator;  
**Movie S5.** Swing arm motion monitoring based on wireless transmission system;  
**Movie S6.** Information monitoring of walking and running based on wireless transmission system.



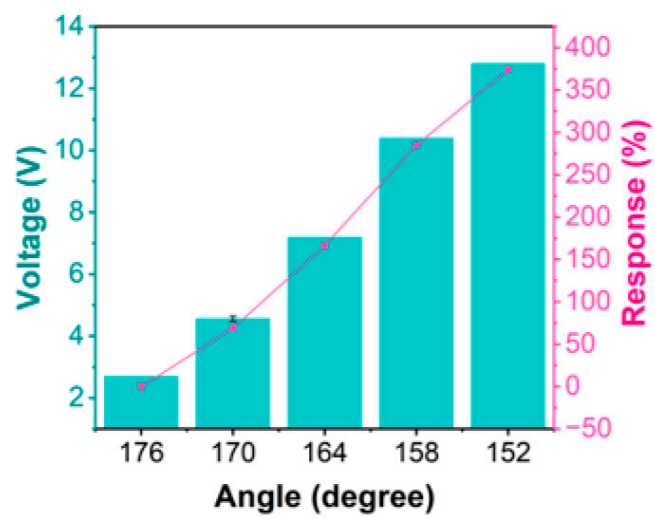
**Figure S1.** The cross-sectional view of EPGS- TENG.



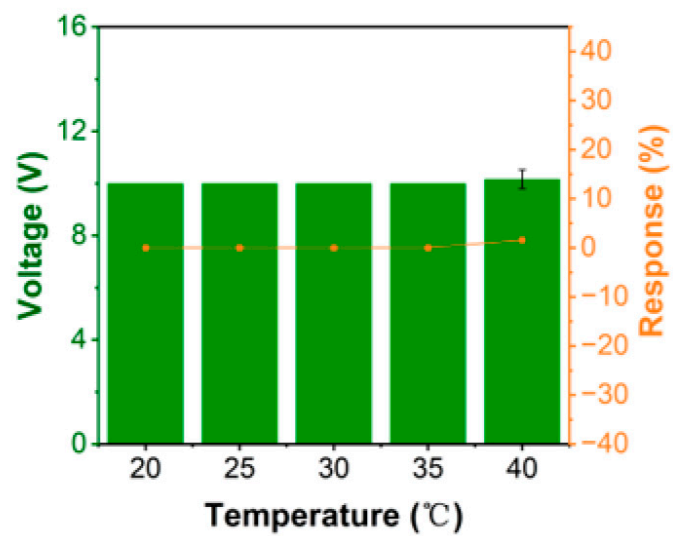
**Figure S2.** The test platform. (a) The test platform of pressure; (b) The test platform of angle.



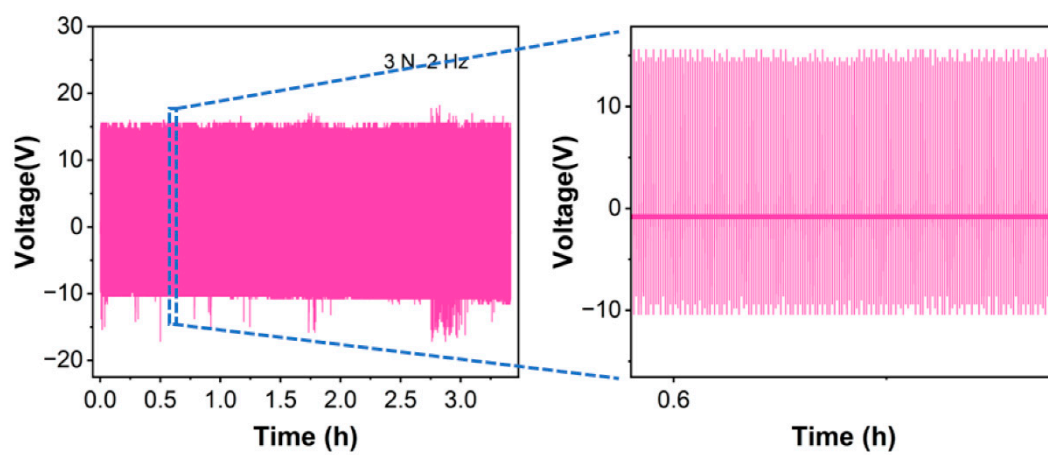
**Figure S3.** The response of output voltage of EPGS-TENG at different frequencies.



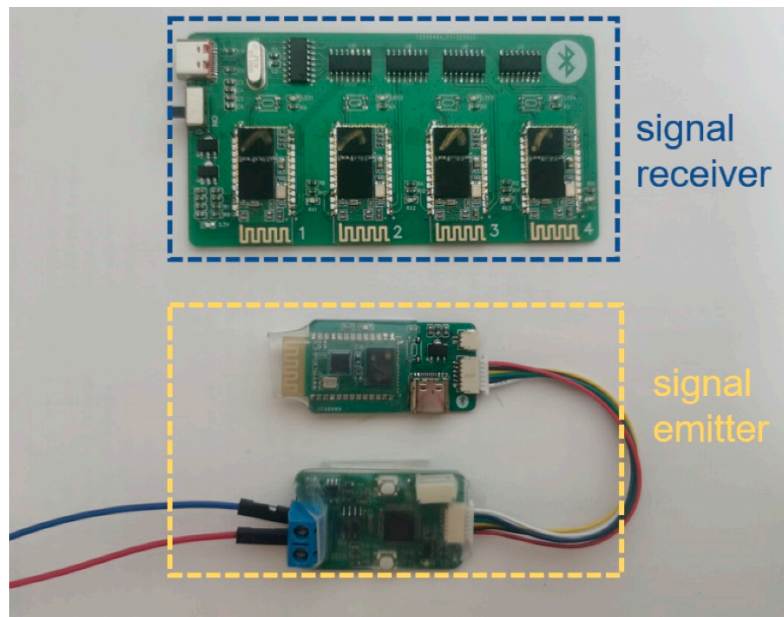
**Figure S4.** The response of output voltage of EPGS-TENG at different angles.



**Figure S5.** The response of output voltage of EPGS-TENG at different temperatures



**Figure S6.** The detail of durability test.



**Figure S7.** The Bluetooth module for wireless transmission system.