## Supporting Information

## **Multimodal Fibrous Static and Dynamic Tactile Sensor**

Jarred W. Fastier-Wooller,<sup>\*1</sup> Trung-Hieu Vu,<sup>1</sup> Hang Nguyen,<sup>2</sup> Hong-Quan Nguyen,<sup>1</sup> Maksym Rybachuk,<sup>3,4</sup> Yong Zhu,<sup>1,5</sup> Dzung Viet Dao,<sup>\*1,5</sup> Van Thanh Dau<sup>\*1,6</sup>

<sup>1</sup>School of Engineering and Built Environment, Griffith University, Engineering Dr, Southport 4222, Australia

<sup>2</sup>University of Engineering and Technology, Vietnam National University, 144 Xuan Thuy, Cau Giay, Hanoi 100000, Vietnam

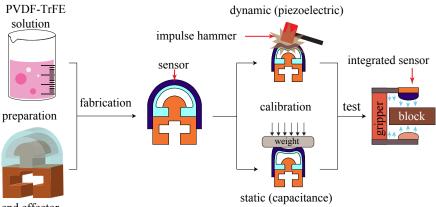
<sup>3</sup>School of Engineering and Built Environment, Griffith University, 170 Kessels Road, Nathan 4111, Australia

<sup>4</sup>Centre for Quantum Dynamics and Australian Attosecond Science Facility, Griffith University, Science Road, Nathan 4111, Australia

<sup>5</sup>Queensland Micro- and Nanotechnology Centre, Griffith University, West Creek Road, Nathan 4111, Australia

<sup>6</sup>Centre of Catalysis and Clean Energy, Griffith University, 1 Parklands Dr, Southport 4222, Australia

\*Email: j.fastier-wooller@griffith.edu.au; d.dao@griffith.edu.au; v.dau@griffith.edu.au



end effector

Figure S1: Flow of work, from (left) material and substrate preparation to (right) integrated sensor testing with robot.

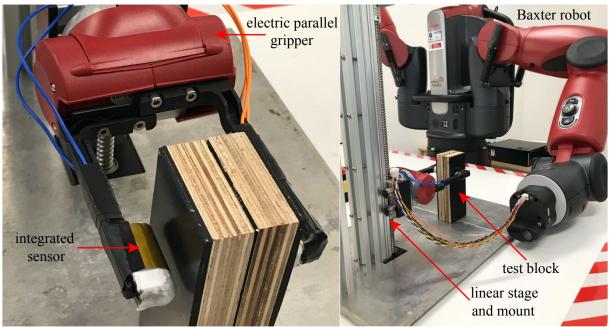


Figure S2: Experimental setup of the Baxter robot.

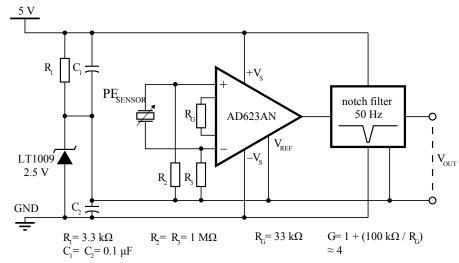


Figure S3: Diagram of circuit used in piezoelectric data acquisition. Notch filter removes some of the ambient noise from the power grid in Australia.

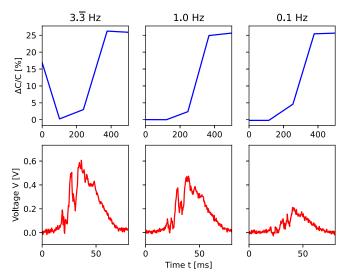


Figure S4: (top) capacitive and (bottom) piezoelectric grip event peaks at different gripping frequencies. Signal can be seen to change in magnitude at different gripping frequencies. Units are shared in the y-axis. Constant gripping pressure of  $P \approx 52.5$  kPa.

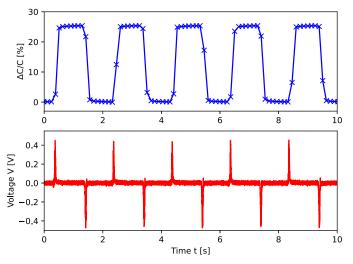


Figure S5: (top) capacitive and (bottom) piezoelectric effects, key data is aligned in the x-axis. Gripping rate and pressure is a constant, at 1.0 Hz and  $\approx 52.5$  kPa, respectively.