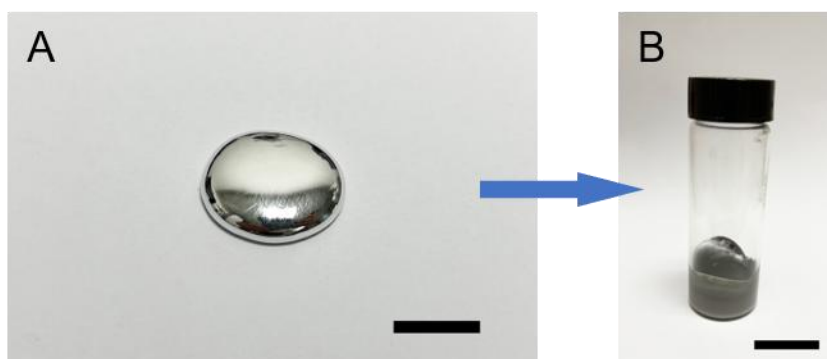


1 **Supplementary Material: Liquid Metal-based Strain-sensing Glove for**  
2 **Human-machine Interaction**

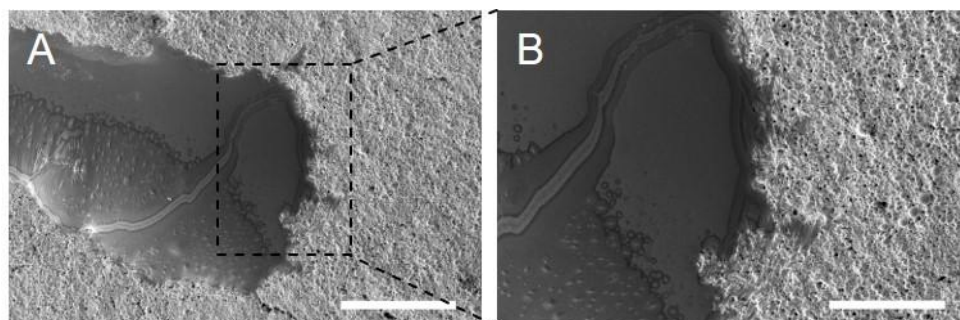
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5 **Supplementary Figure 1.** Transformation of liquid metal form. (A) Fresh bulk liquid  
6 metal. Scale bar: 10mm. (B) Prepared liquid metal slurry for scraping. Scale bar:  
7 20mm.

8



9

10 **Supplementary Figure 2.** SEM images of liquid metal trace after a tweezer tip was  
11 used to draw on its surface. (A) The released bulk liquid metal and surrounding  
12 unactivated liquid metal particles. Scale bar: 200  $\mu\text{m}$ . (B) is the enlarged view of details  
13 at the junction of two forms of liquid metal. Scale bar: 100  $\mu\text{m}$ .

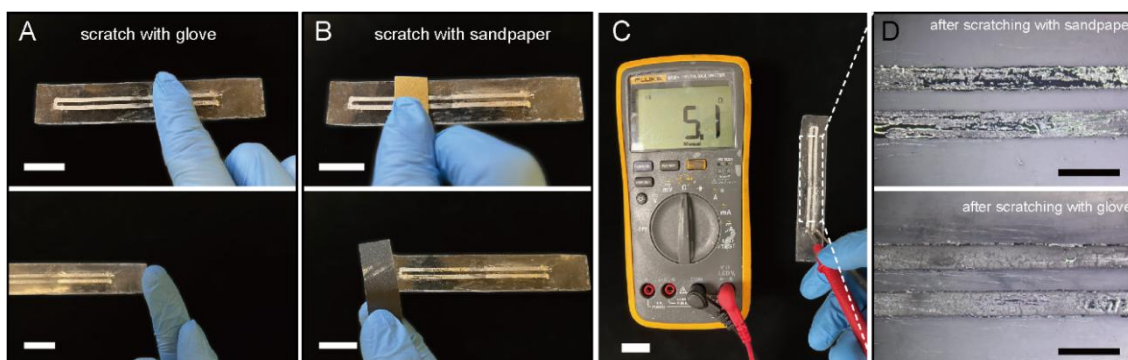
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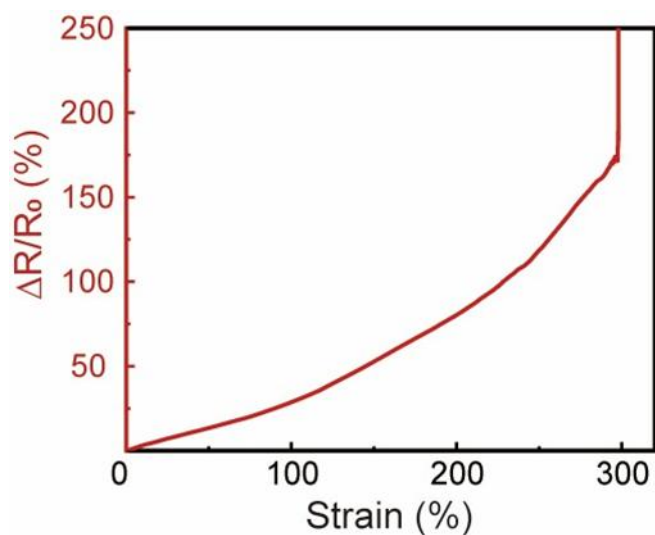
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15 **Supplementary Figure 3.** Abrasion resistance performance of sensing circuits based  
16 on liquid metal slurry. (A) Scraping the circuit with a nitrile glove. Scale bar: 2 cm. (B)  
17 Scraping the circuit with sandpaper. Scale bar: 2 cm. (C) The circuit remains  
18 conductive after two scraping operations. Scale bar: 2 cm. (D) Optical microscope  
19 images of the circuit after scraping. Scale bar: 5 mm.

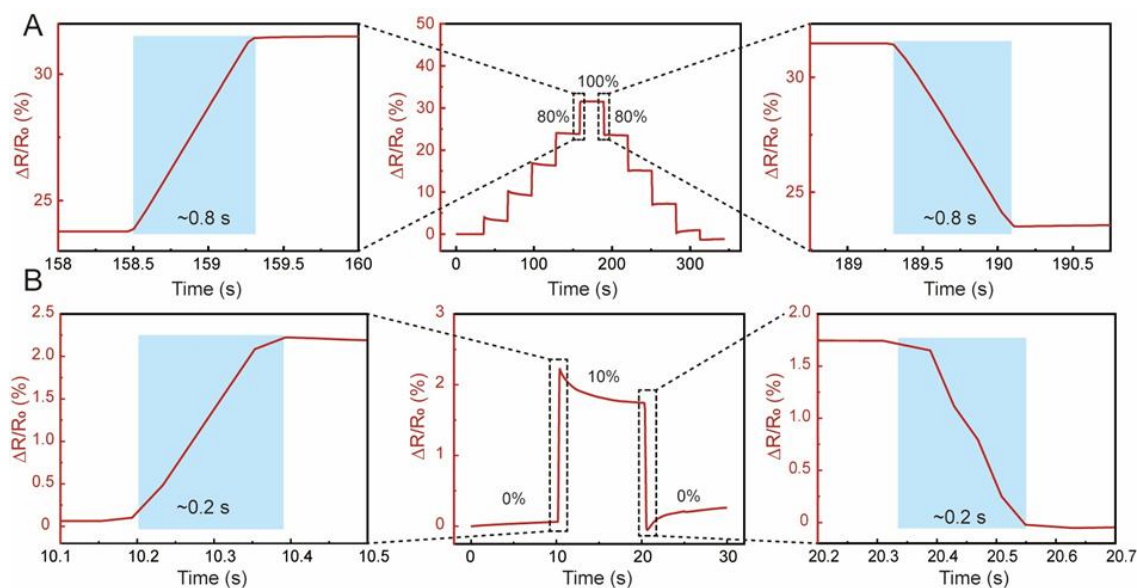
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21

22 **Supplementary Figure 4.** Extreme sensing strain of strain-sensing circuit and its  
23 resistance changes.

24



25

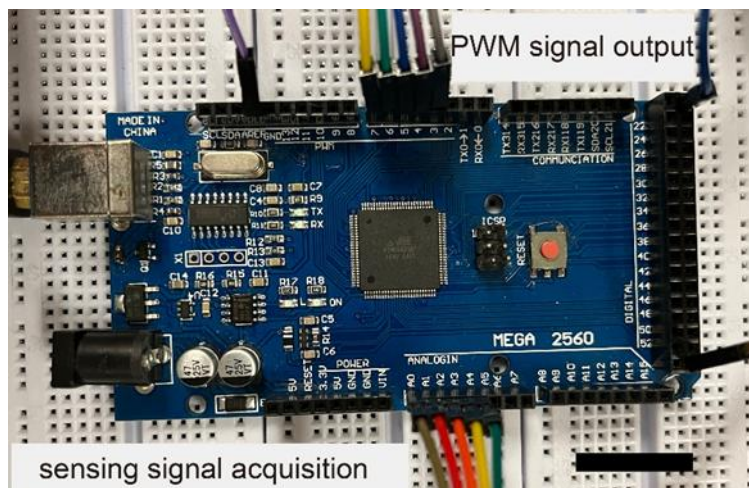
26 **Supplementary Figure 5.** Response time and relaxation time of the sensing circuit. (A)

27 The response time and relaxation time of the sensing circuit when the tensile distance is

28 8 mm, and the tensile rate is 10 mm/s. (B) The response time and relaxation time of the

29 sensing circuit when the tensile distance is 4 mm, and the tensile rate is 20 mm/s.

30



31

32 **Supplementary Figure 6.** The circuit diagram of Arduino MEGA 2560 as the MCU of

33 human-machine interaction. Scale bar: 2 cm.

34