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Electronic Supplementary Information (ESI)

**Electrical conduction of nanoparticle monolayer for accurate tracking
of mechanical stimulus in finger touch sensing**

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Supplementary materials include:

1. Scanning electron microscopy images of nanoparticle monolayer and single nanoparticle;
2. Statistical analysis of size distribution for gold nanoparticles;
3. The optical photo to illustrate experimental configurations during electrical property measurement.

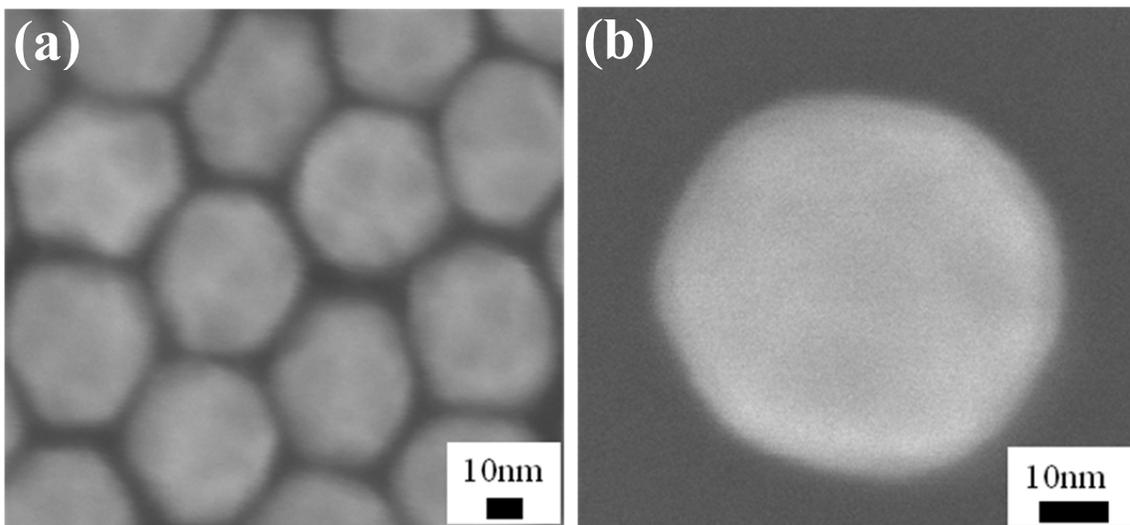


Fig. S1: The SEM images of gold nanoparticles. (a) Most gaps between gold nanoparticles are below 3 nm. (b) The magnified SEM image of single gold nanoparticle indicates the nearly spherical shape.

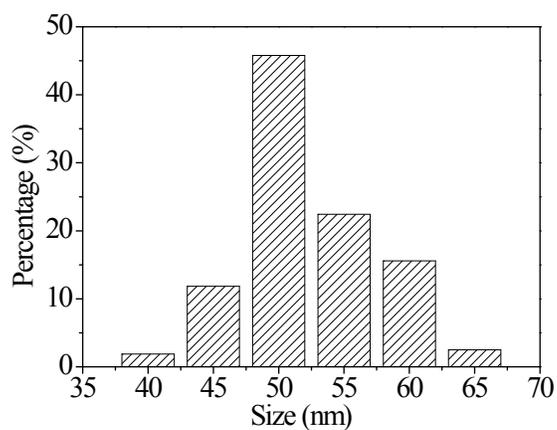


Fig. S2: Statistical analysis of size distribution for gold nanoparticles. The average particle size is estimated as ~50 nm.

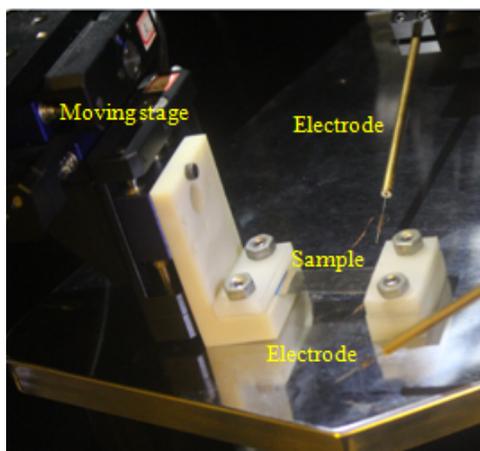


Fig. S3: The optical photo to illustrate experimental configurations during electrical property measurement. The nanoparticle strip is assembled onto the center of transparent PET film.