## **Electronic Supplementary Information**

## Chemical Sensing at the Robot Fingertips: Towards Automated Taste Discrimination in Food Samples

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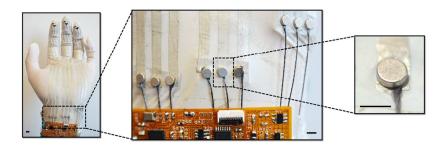
## 1. Experimental Videos.

Video S1. Caffeine detection with robotic hand.

Video S2. Sweetness detection with robotic hand.

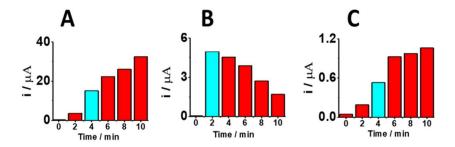
- 2. Figure S1: Robotic hand: design and connection to electronic board
- 3. Figure S2: Optimization time for detection of solid foodstuff
- 4. Figure S3: Control experiments for glucose detection
- 5 Figure S4: Sugar detection in liquid foodstuff containing caffeine

Figure S1: Robotic hand: design and connection to electronic board



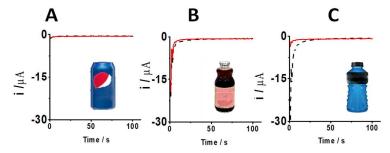
**Figure S1.** Glove based connections to PCB (scale bar, 3 mm). The cylinder-shaped neodymium magnets were used for affixing the conductive thread which connects the printed trace to the PCB.

Figure S2: Optimization time for detection of solid foodstuff



**Figure S2** Optimization of time required for diffusion of the solid sample in the agarose gel for **(A)** ascorbic acid, **(B)** glucose and **(C)** capsaicin detection.

Figure S3: Control experiments for glucose detection



**Figure S3.** Control experiments for glucose contained in commercial beverages on gustatory sensor unmodified with  $GO_X$  for **(A)** coke, **(B)** cherry cider and **(C)** energy drink.

Figure S4: Sugar detection in liquids containing caffeine

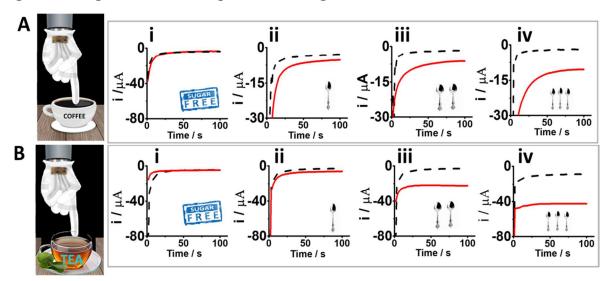


Figure S4. Sweetened detection in (A) coffee drink and (B) black tea containing (i) no glucose, (ii) one spoon of glucose, (iii) two spoons for glucose and (iv) three spoons of glucose.