

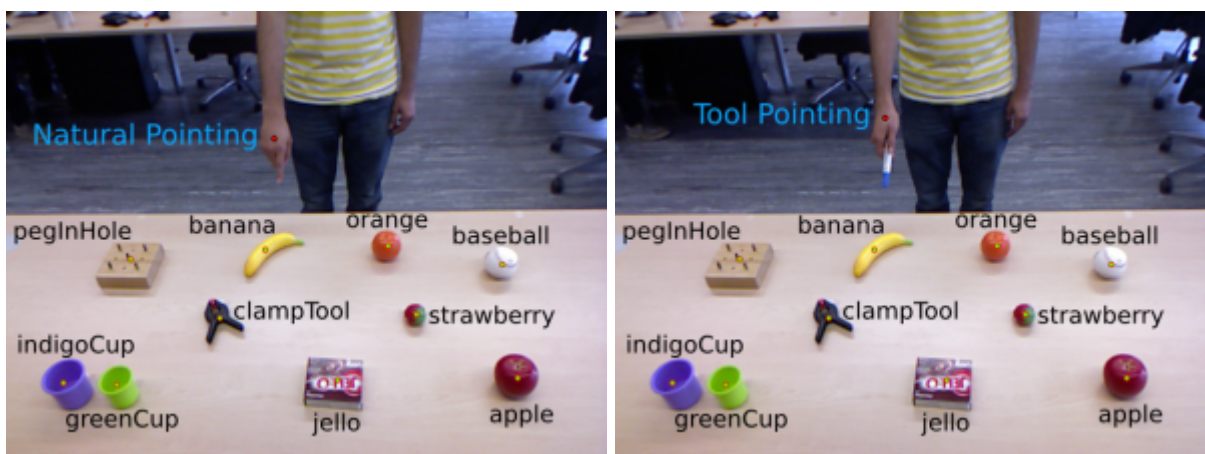
## Innsbruck Pointing at Objects Dataset

Deictic gestures – pointing at things in human-human collaborative tasks – constitute a pervasive, non-verbal way of communication, used e.g. to direct attention towards objects of interest. In a human-robot interactive scenario, in order to delegate tasks from a human to a robot, one of the key requirements is to recognize and estimate the pose of the pointing gesture.

### Dataset Features

- Two types of pointing gestures: (1) Natural pointing with index finger, and (2) Tool pointing with white board marker.
- 9 participants pointing at 10 objects performing both the types of pointing gestures.
- Pointing gestures recorded with RGB-D with Kinect sensor.
- 180 RGB-D test images available with the ground truth to evaluate 3D pointing direction.
- Publicly available to [Download](#) (~100MB).

### Sample Images



Marked points (red - hand, green - objects) are the 2D locations used as the ground truth.

### Reference

Dadhichi Shukla, Ozgur Er kent, Justus Piater, Probabilistic detection of pointing directions for human robot interaction. International Conference on Digital Image Computing: Techniques and Applications, 2015. [PDF](#).

### BibTex

```
@InProceedings{Shukla-2015-DICTA,  
  title = {{Probabilistic detection of pointing directions for human robot  
interaction}},  
  author = {Shukla, Dadhichi and Er kent, Ozgur and Piater, Justus},  
  booktitle = {{International Conference on Digital Image Computing:  
Techniques and Applications}},  
  year = 2015,  
  month = 11,  
  url = {https://iis.uibk.ac.at/public/papers/Shukla-2015-DICTA.pdf}  
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## Acknowledgement

This research has received funding from the European Community's Seventh Framework Programme FP7/2007-2013 (Specific Programme Cooperation, Theme 3, Information and Communication Technologies) under grant agreement no. 610878, [3rd HAND](#).

## Contact

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Last update: **2018/09/03 14:57**

