

Food·E the Robot for Learning About What You Eat

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What Will Food·E Do?

Follow A Shopper

Food·E will track and follow a person as they walk through a “store.”

Identify Grocery Store Items

Food·E will recognize the items that a person gives it to hold in a basket.

Manage an Inventory

Food·E will remember how many of each item it is holding.

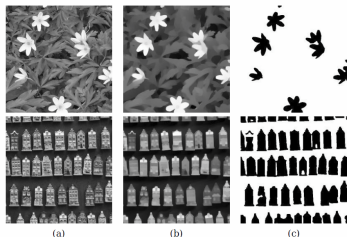
Provide Information

Food·E will respond to queries about the items it is holding.

How Will Food·E Track a Person?

Proposed Method

- 1 Take a picture using a forward facing camera
- 2 Segment the image into blobs (Chan-Vese)
- 3 Allow the user to touch their own blob (Kivy)
- 4 Track blob in real time using Kalman filter



How Will Food·E Identify an Object?

Possible Methods

Easy

Near field communication
(NFC) tags on each object

Moderate

Scan product barcode

Difficult

Computer vision object
recognition

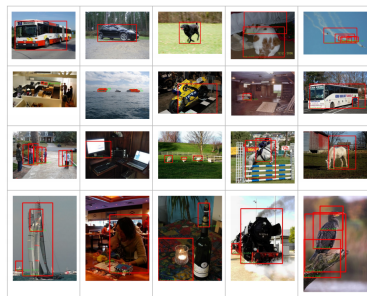


Figure: Example of object detection, prior to classification

The End