ABM with I-CubeX

Automated Behaviour Measurement with
I-CubeX sensors, interfaces and software
Axel Mulder
Infusion Systems Ltd.

I-CubeX

- Real-Time Media Control development tools

- Sensors, Interfaces, Software and Support

- Since 1995 used world-wide

- R&D of music, exhibits, games, biomedicine

- www.ICubeX.com   **I-CUBEX**

I-CubeX

Procedure

- Design: define behaviour parameters

- Setup: instrument space, person(s)

- Observe: capture sensor data

- Process: annotate sensor data

- Analyze: calculate statistics

- Publish !

Equipment

- Sensors: cameras, biosensors, eye-tracker, GPS, switches, ..

- Software: Noldus Observer, TechSmith Morae, ..

- .. use/add **I-CUBEX** !

New Procedure

- Design: define behaviour parameters

- Setup: instrument space, person(s)

- Observe: capture sensor data

- ~~Process: annotate sensor data~~

- Analyze: calculate stats

- Publish !

Demo

Consumer - Product Interaction Behaviours:

- Walk past/back

- Approach/Retreat

- Reach/Retract

- Pickup/Release

Equipment

- Sensors: MoveAlong, ReachClose, Touch

- Interface: USB-microDig

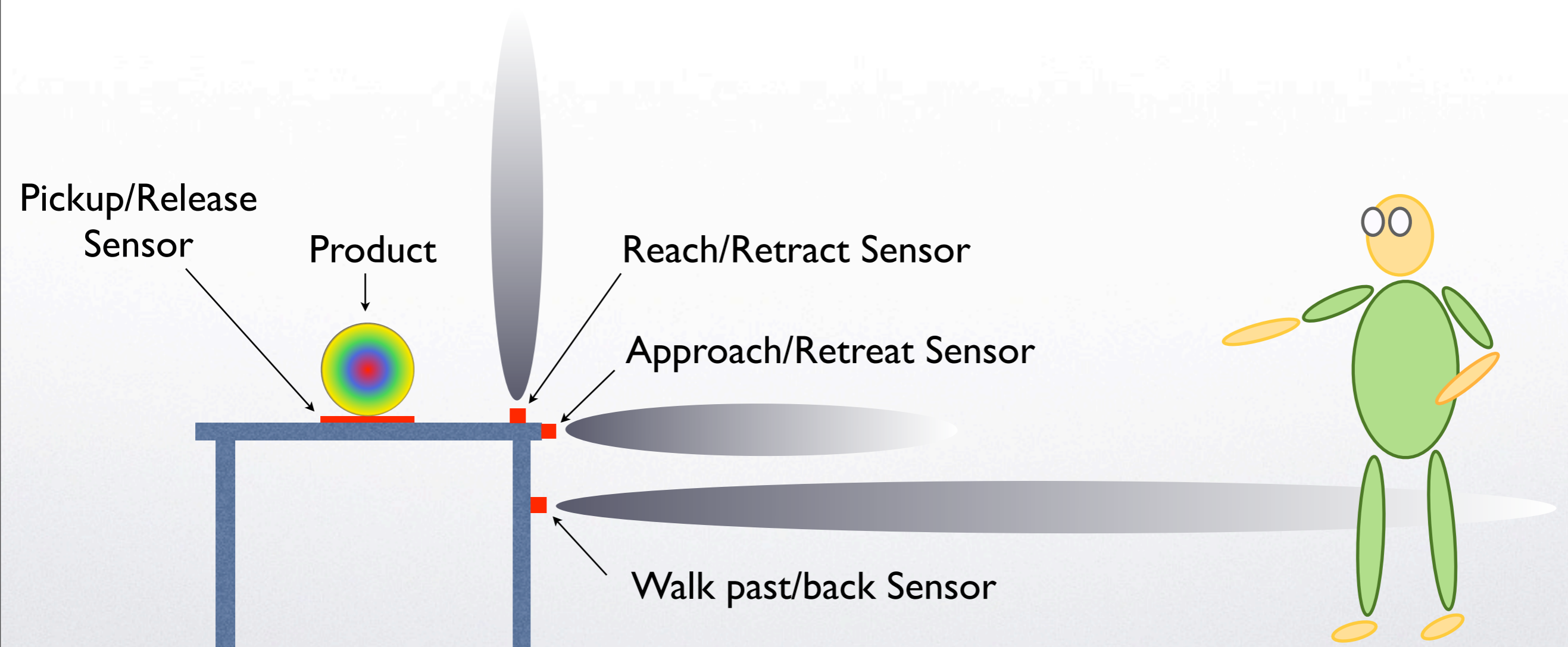- Software: I-CubeX Editor, Keycode Mapper

- Software: Noldus Observer

Capture

- Walk past/back: MoveAlong

- Approach/Retreat: ReachClose

- Reach/Retract: ReachClose

- Pickup/Release: Touch

Overview

Pickup/Release Sensor

Product

Reach/Retract Sensor

Approach/Retreat Sensor

Walk past/back Sensor

Why I-CubeX ?

- ## Reduced data processing through *automated behaviour coding*

- ## Reduced data ambiguity through *behaviour specific capturing*

- Caution: design carefully to avoid false triggers

Why I-CubeX ?

- Availability of high-resolution data

- Availability of real-time multi-modal feedback

- Lots of sensors, ie. input modalities

- Easy to connect & setup

Thanks !

Feedback, Questions ?

- Look up www.ICubeX.com/behaviour

- Contact me at Axel@ICubeX.com