

Measuring User Interactions with a Contextual One-Button- Interface

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Structure

- Idea/Motivation
- The Contextual Button
- Use Case
- Prototype
- Future Work

Idea/Motivation

- Amazon Dash Button
 - Wi-Fi enabled
 - Place order online
 - Context



The Contextual Button

- Wi-Fi enabled button
- Independent from Amazon infrastructure
- Measure user interactions
- Integrate as sensor into Sensor Observation Service



Use Case

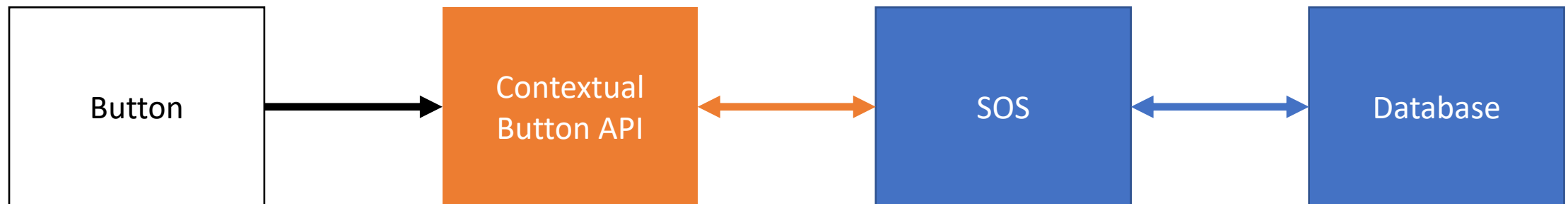
- Why would we even want something like this?
 - Physical interactions in direct context
 - Privacy
 - Independent of device
- What kind of interactions are we talking about?
 - Use humans as sensor to measure something that cannot be measured otherwise
- Limitations
 - Only count data

Use Case

Assessing people's perception of security

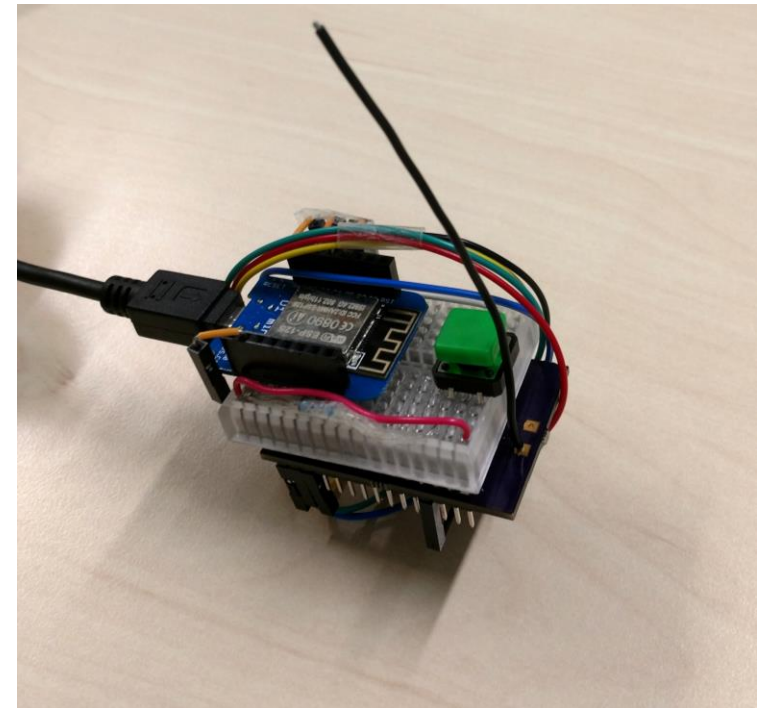
Prototype

- Hardware
 - Contextual Button
 - Based on ESP-8266
- Software
 - Base on 52North SOS Docker image
 - Flask API + small web app for visualization



Future Work

- Use (Time-)Series API v2 for visualization
- Extend button to have binary options
- WiFi/power supply independence (LoRaWAN)



Thank You!

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Questions?

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