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End-user development of eTextiles



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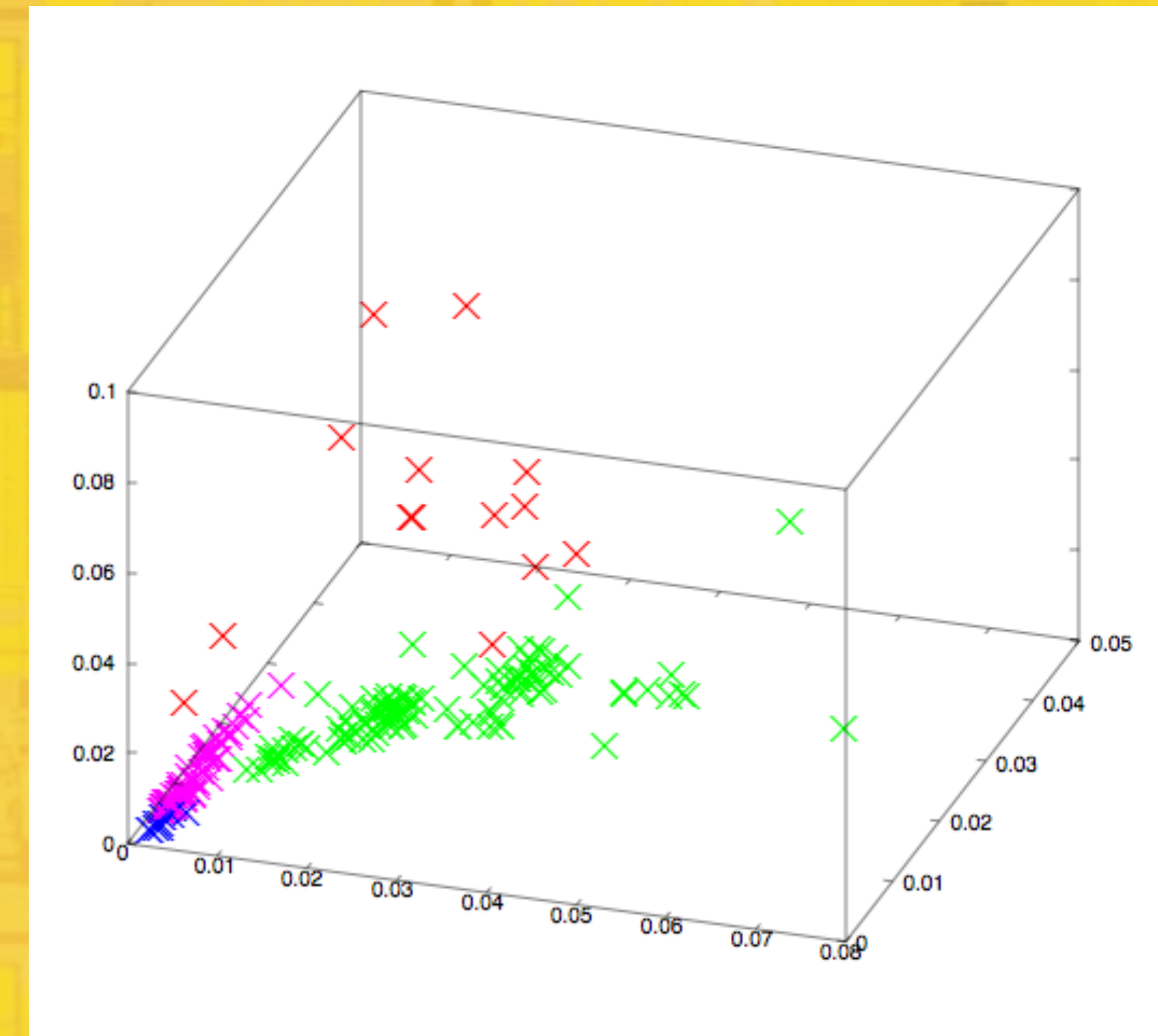
I want to share with you....

Custodian Jacket



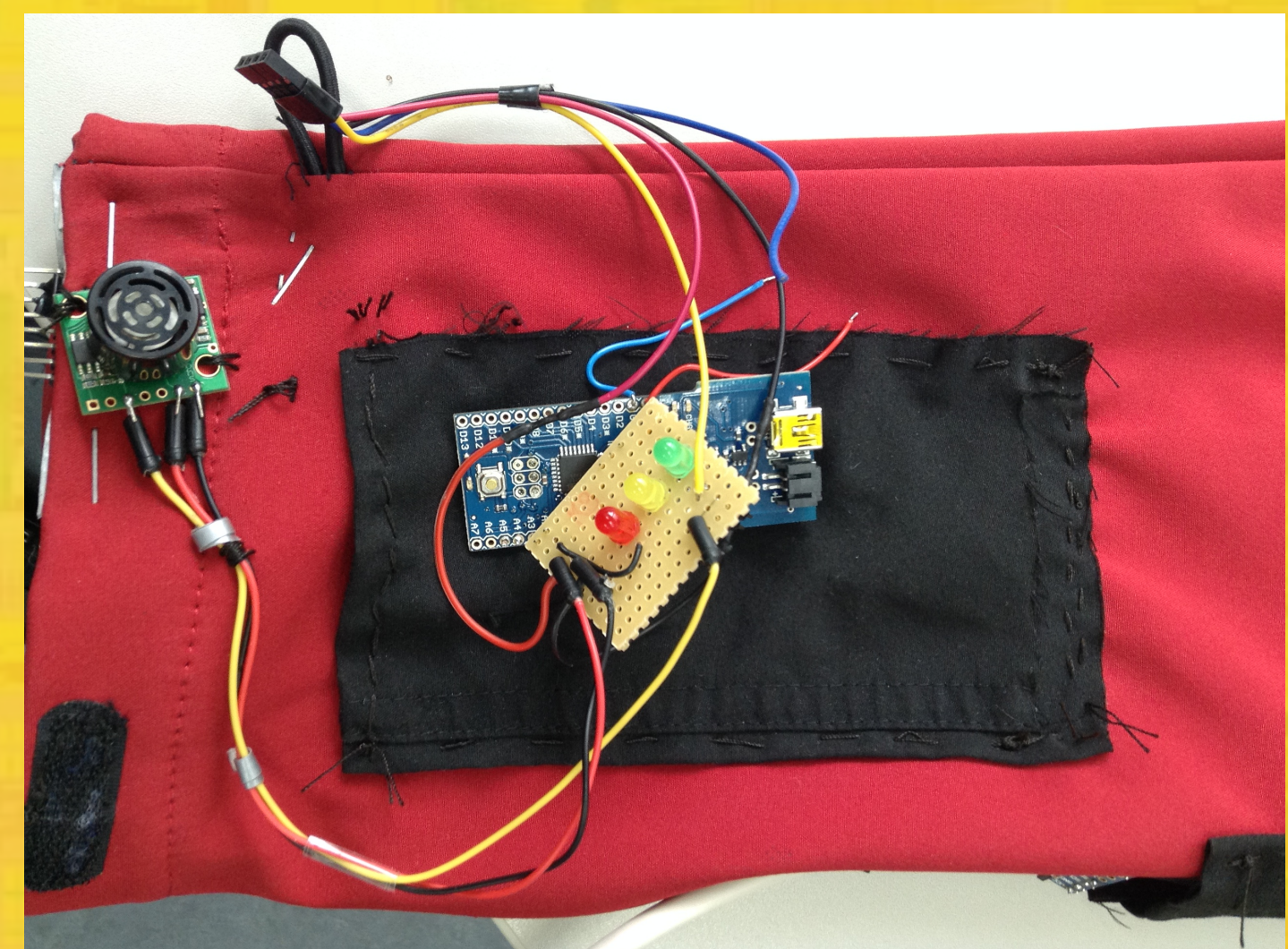
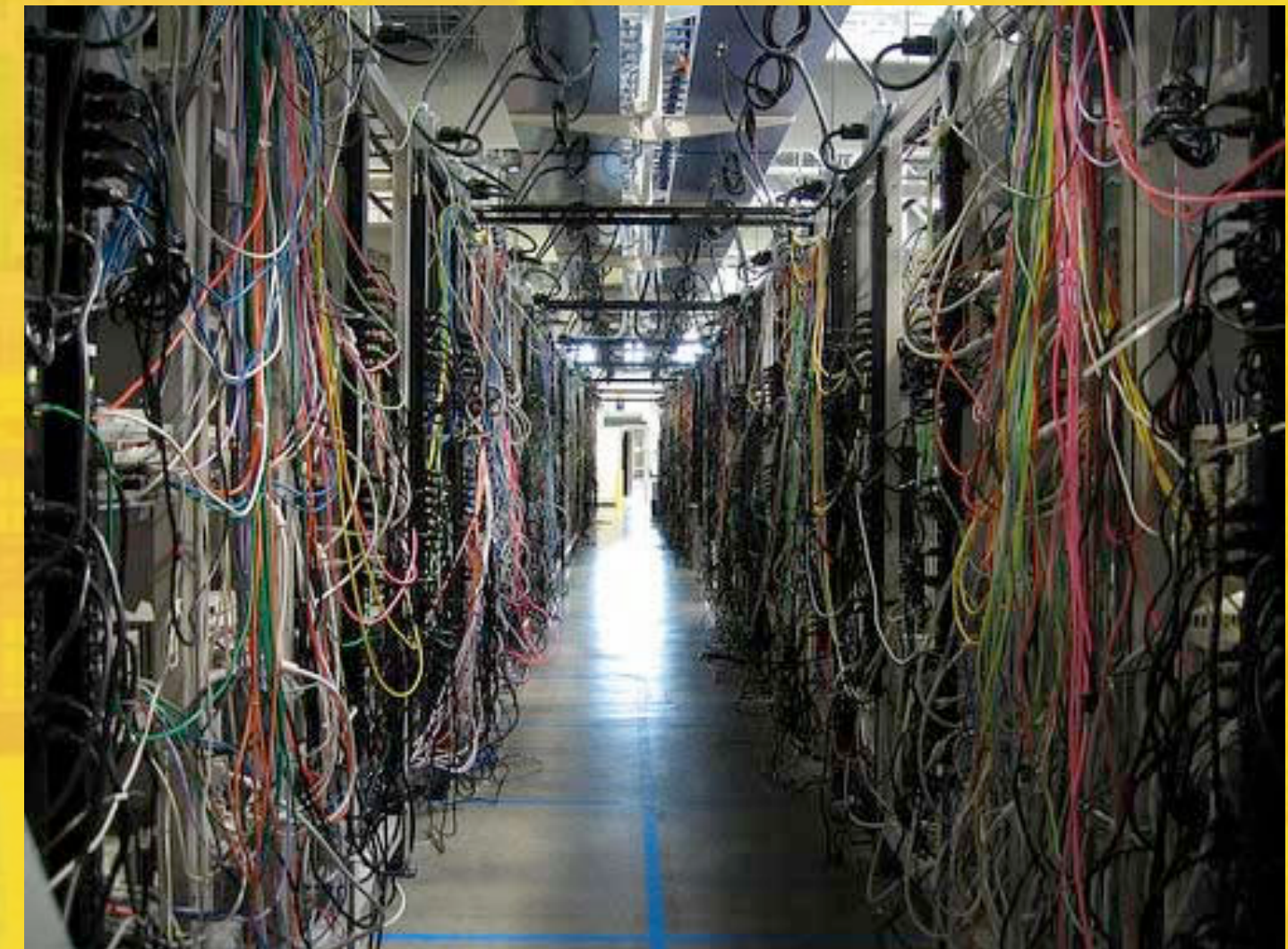
Use Case: Accident detection

- Technicians might have to access the supercomputer center at 3 am on a Sunday.
--> Nobody might notice an accident
- Activity recognition based on motion sensors: walking, standing, lying down, climbing a ladder
--> Send emergency signal in case accident detected

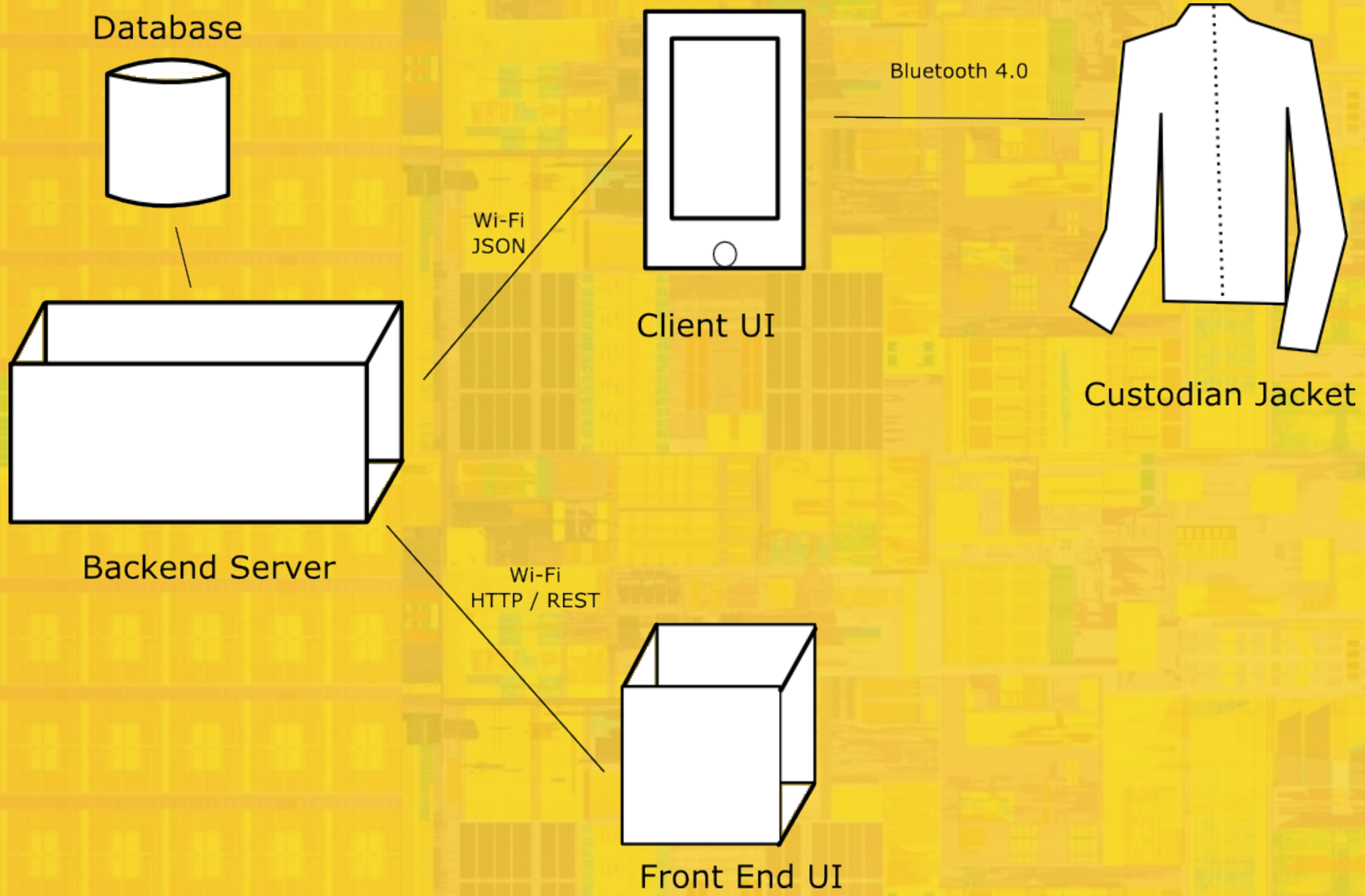


Use Case: Finding servers

- On average, a technician pulls out the wrong server once a year
 - Costs the company lots of money
- Possible solution: instrument every rack with an LED for each server
 - Requires considerable maintenance effort
- Our solution: Proximity sensor measures distance to ground and compares with server's distance to ground



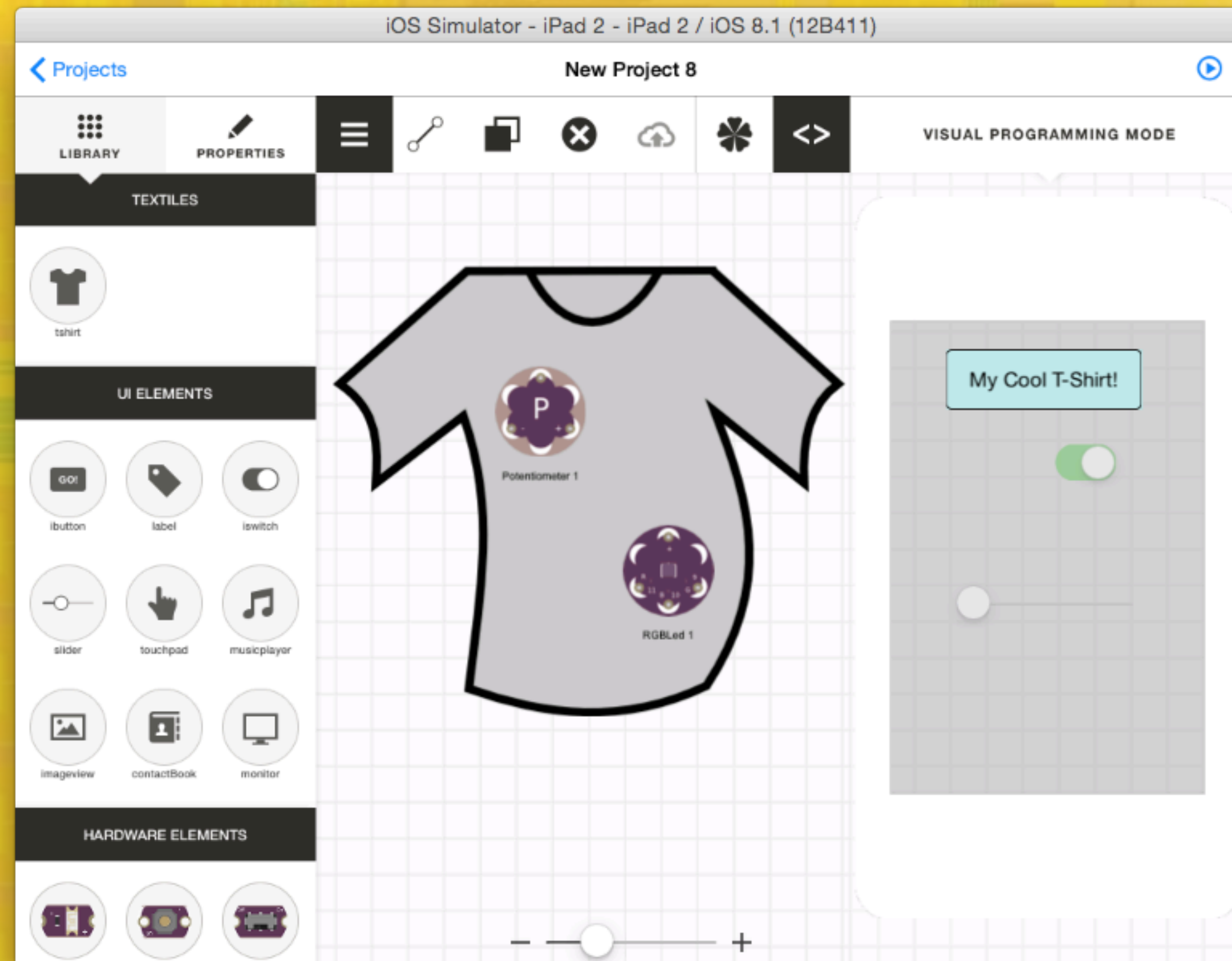
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My Vision on eTextiles

- Who had a mobile phone 20 years ago?
- Who has a smart watch / wristband / fitness device today?
- How do you see society 20 years from now?

My PhD thesis: End-user development of eTextiles



TangoHapps Architecture

TangoHapps IDE



TangoHapps Client



WiFi
↔

Bluetooth 4.0
↔

Arduino Program



Thank You!



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