

What's this?



It's an actuator.



I have a new actuator



Do I now have a “smart home”?



Well, I can do things by voice

- “Alexa, turn on the lights.”
- “Alexa, set the thermostat to 72.”
- “Alexa, play Eric Clapton music.”
- “Alexa, let’s watch TV.”
- “Alexa, it’s bedtime.”

- But there’s nothing “smart” here, is there?
- I just use my voice rather than my finger.

But wait...

- I can also add some checks and warnings.
- Maybe I'll get a text message if the house gets too hot or too cold.
- **Now** it's "smart".
- Mmmm, OK, maybe, but only a little.
- This isn't going to change the world.

No matter how much we do...

- ...if it's like that stuff, it may be a bit of fun, but it's not exciting.
- It'll sell light bulbs and Echo devices for a while, but it's not really showcasing what the ***Internet of Things*** can be.
- Except maybe when the light bulbs get co-opted to perform DDoS attacks.

Here's what I think IoT is:

- Matthias invites me to a meeting at his office on Thursday morning.
- I accept the invitation and it goes on my calendar.
- On Wednesday, when I tell Alexa that it's bedtime, she reminds me that I have an early meeting tomorrow.
- My alarm clock also sees my calendar and wakes me up early on Thursday.
- Similarly, my coffee maker has coffee ready.

...continuing...

- When I get into my car, it's already got a route planned to take me to Matthias's office...
- ...and because it knows I need gas/petrol/essence, it takes me past the cheap gas station and reminds me to stop.
- The system knows my wife's schedule also, and tells me that I need to pick the kids up after school because I'll be out before she is.
- The refrigerator has put milk on the shopping list, and because that's a priority item it suggests that I might want to stop at the store.

...continuing...

- When I leave the meeting and acknowledge the stops (kids, store), the system makes an estimate of when I'll be home.
- It sets the house temperature so it will be comfortable when I arrive with the kids.
- And it automatically notifies my wife that I've gotten the kids, so she doesn't have to worry.

Why is this different?

- It represents a smart system. It's not just a different way to turn on the lights. Things interact in useful ways.
- Many pieces: email, calendar, home control system, phone, alarm clock, coffee maker, refrigerator, thermostat, car.....
- It's the aggregation and interaction that makes the system "smart", that makes it a real "Internet of Things" application.

Can we move in that direction?

- Can we start ourselves on a path to get there?
- Can we start focusing our testing not just on interoperability of the protocols, but also on interaction of IoT components?
- Can we make our demos something that makes people excited about the possibilities?