# Your Turn™*

VIRT-EU Design Challenge, 2nd round, CC BY-SA, thomas.amberg@fhnw.ch, 23.06.2019

## Description

*Your Turn™* lets household chores draw attention to themselves, depending on who's there.

Whether it's friends, partners or entire families living together, chores are often done by the same person again and again, rather than equally distributed. Reasons might vary, but the solution is clear: if you didn't bring out the trash for a while, it's your turn! The system uses an AI cam, a sensor and an indicator, connected through radio, to keep track and notify the person who *should* do a chore, before it's too late. It's "AI-mediated, shared responsibility."

Mockup of *Your Turn™* hardware, a power supply might be necessary for the camera module.

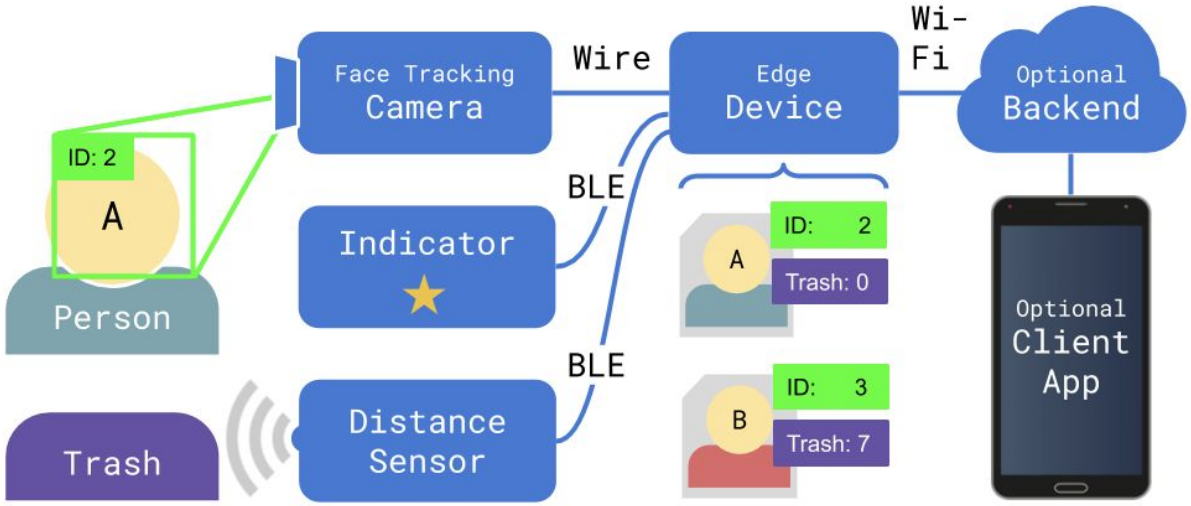
This submission is focused on trash as an example, but the same system would probably work for other chores like bringing empty bottles to the recycling station, buying new toilet paper, or, with another sensor, watering the flowers on the balcony.

## Technical Diagram

The *Your Turn™* cam module houses a face tracking camera and an edge device, connected through a cable. No face data leaves the module. A local database is kept to keep track of which face ID did which chore, e.g. taking care of the trash. The edge device subscribes to measurements from the sensor module and sets the LED status on the indicator module, both via Bluetooth (BLE). An optional backend allows integration of the chore scores with 3rd party client apps, face data stays private. Detecting faces and finding the right time to indicate chores will require considerable computing resources. The edge device will therefore depend on mains power. This allows us to use Wi-Fi.

*) Design fiction. Not an actual trade mark.

Here's a simple reference model:




The hardware is based on https://github.com/tamberg/fhnw-iot-bricks, made from off-the-shelf parts.

## User Storyboard

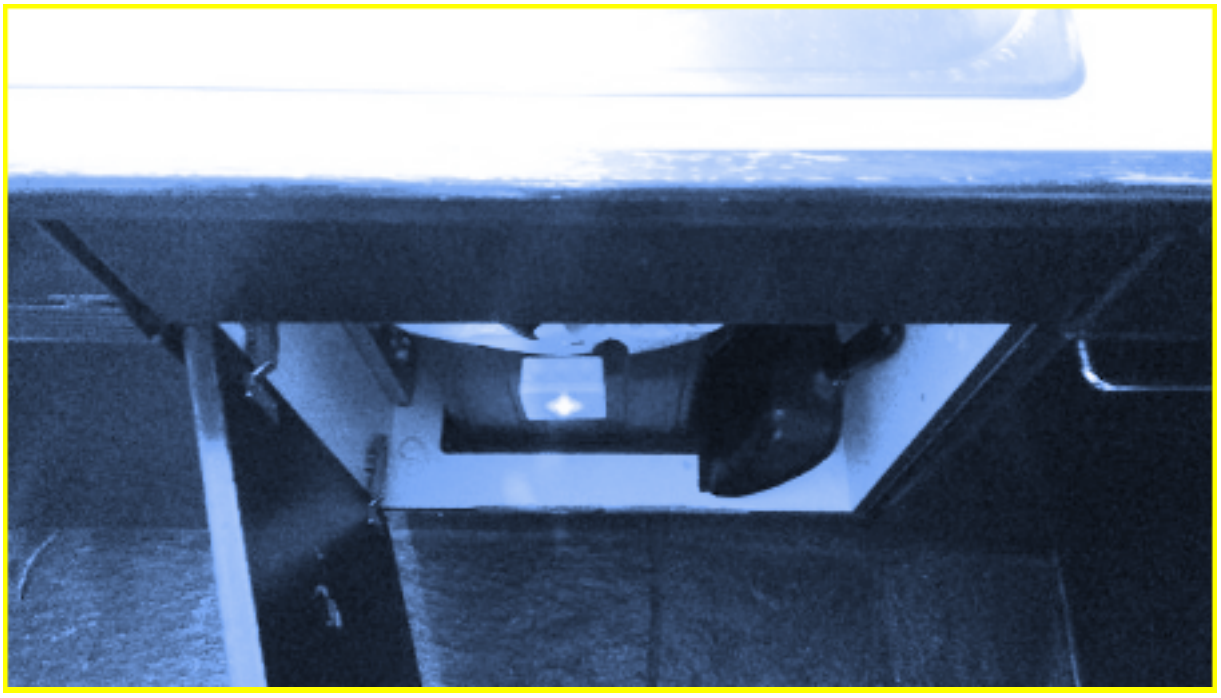
Here's a simple user storyboard of the case where I am the one whose turn it is to do a chore.

Thomas needs a sandwich.

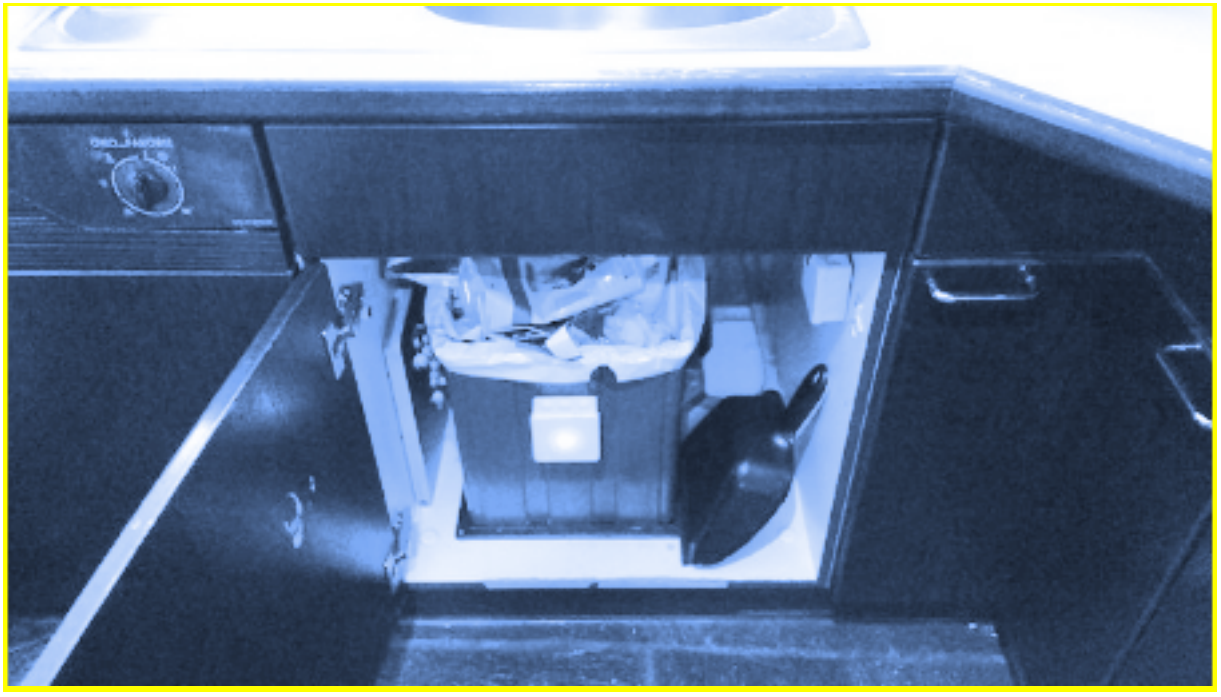
There's a *Your Turn*™ camera.

The *Your Turn*™ camera identifies Thomas, he doesn't even notice.

"Nice, last piece of ham, I'll just throw this paper away..."



When Thomas opens the thrash door to get rid of the paper, the *Your Turn*™ indicator is lit.



"Uh, the trash is pretty full indeed."

"Can't hide from the sensor, can you?"

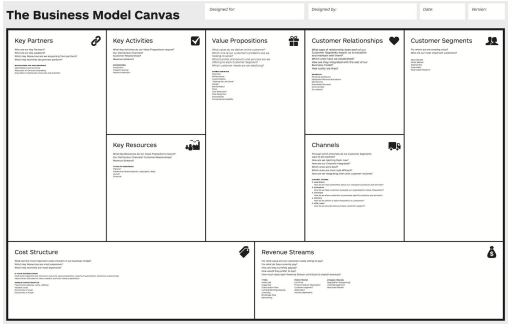
"Ok, I could squeeze in some more stuff, but I guess it's better to empty it now."


"Done. Now it's your turn :)"

# Business Plan

Here's an example business plan, though I'd prefer to just build an open source prototype.

Based on https://www.strategyzer.com/canvas/business-model-canvas




## Key Partners

- http://chorescore.life/ App
- Marriage counsellors

## Key Activities

- Pre-sales
- Designing DIY kits
- Supporting customers online

## Key Resources

- Pre-sales money for first batch
- Drop-shipping facilities in China
- Docs and forum for online support

## Value Proposition

- "Keep your household in harmony, with AI"
- "End chore guilt, restore your trash karma"
- "Let the trash can teach your teenage kids"
- "Get your 30-year-old son to finally move out"

## Customer Relationships

- Self-service, DIY from pre-made components with printed instructions, like IKEA
- Online support

## Channels

- Awareness through home shopping TV channels, ads in family magazines, brochures
- Evaluation through 30 day return guarantee for the DIY kit product
- Delivery of the core value through the DIY kit itself
- After-sales support through online forum

## Customer Segments

Mass market, people living together in a household, specifically

- Partners feeling their partner does not contribute enough
- Partners feeling guilty about not contributing enough
- Parents of motivated but forgetful teenage kids
- Parents in "Hotel Mama" situations

## Cost Structure

- Fixed cost per product: material, production, shipping
- Fixed cost, one person: enabling and providing online support

## Revenue Streams

- Product sale, fixed price
- No data extraction :)