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## 1. MOTIVATION

Many important long term goals are challenging and demands consistent repeated effort over long periods of time. Examples:

- Healthy Diet (e.g., fruit and veg daily).
- Regular Physical Activity.
- Learning.

However, we are overloaded with the challenges of our daily lives and these short term priorities may cause us to lose focus on important long term goals.

*We need tools that help people better achieve their long term goals.*

## 4. EMERGING TECHNOLOGIES

### Tangible User Interfaces (TUI) & Ambient Displays

- attention grabbing, “glanceable” displays, group awareness.
- Clear affordance and potentially more widely adopted (e.g., the operations of a push button is clear).

### Rise of the Internet of Things

- Portability / Long Battery Life (year) / Lower cost.
- Wearables, Sensors, Wireless and Internet Conn



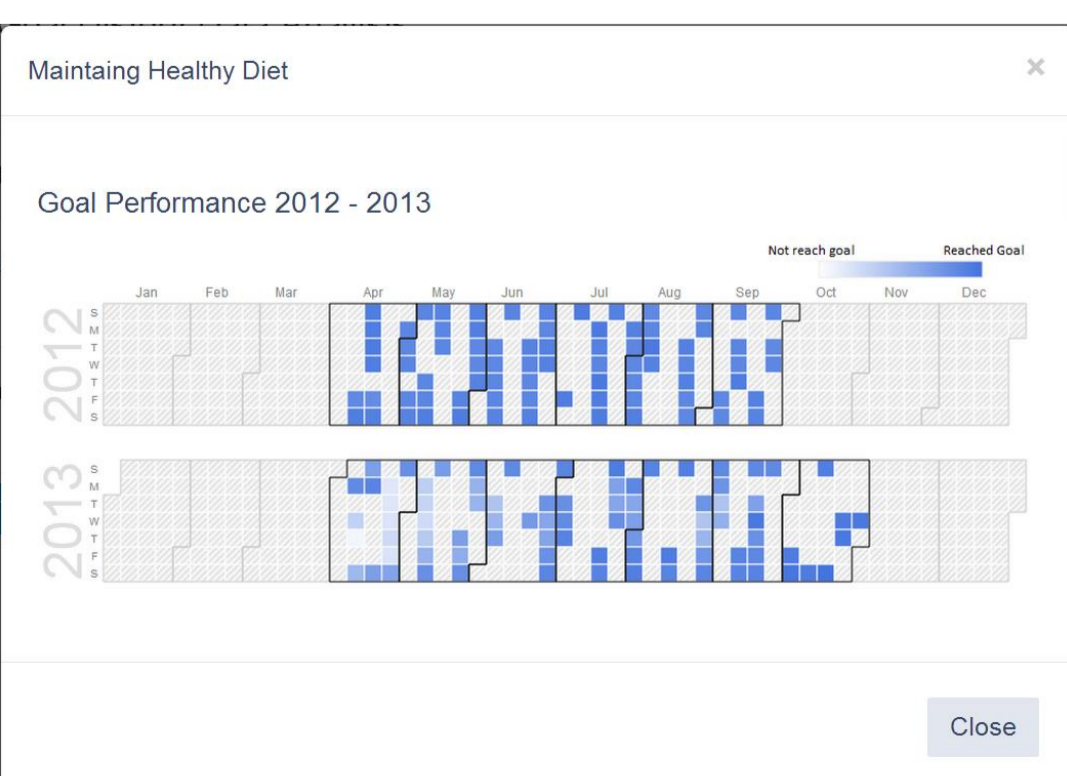
### Gamification

- Applying Game thinking and Game techniques has the potential to engage and motivate users over the long term.

## 7. FUTURE WORK

### Evaluation

- Study the internet goal button to observe user interaction, effectiveness and considerations for promoting long term goals with TUIs.
- Study how Gamification of TUI and ambient displays can support motivation towards long term goals.
- Study Group Goals and Social Interaction with Tangible user interfaces and ambient displays.



## 2. CHALLENGES

Challenges cited by people on achieving long term goals:

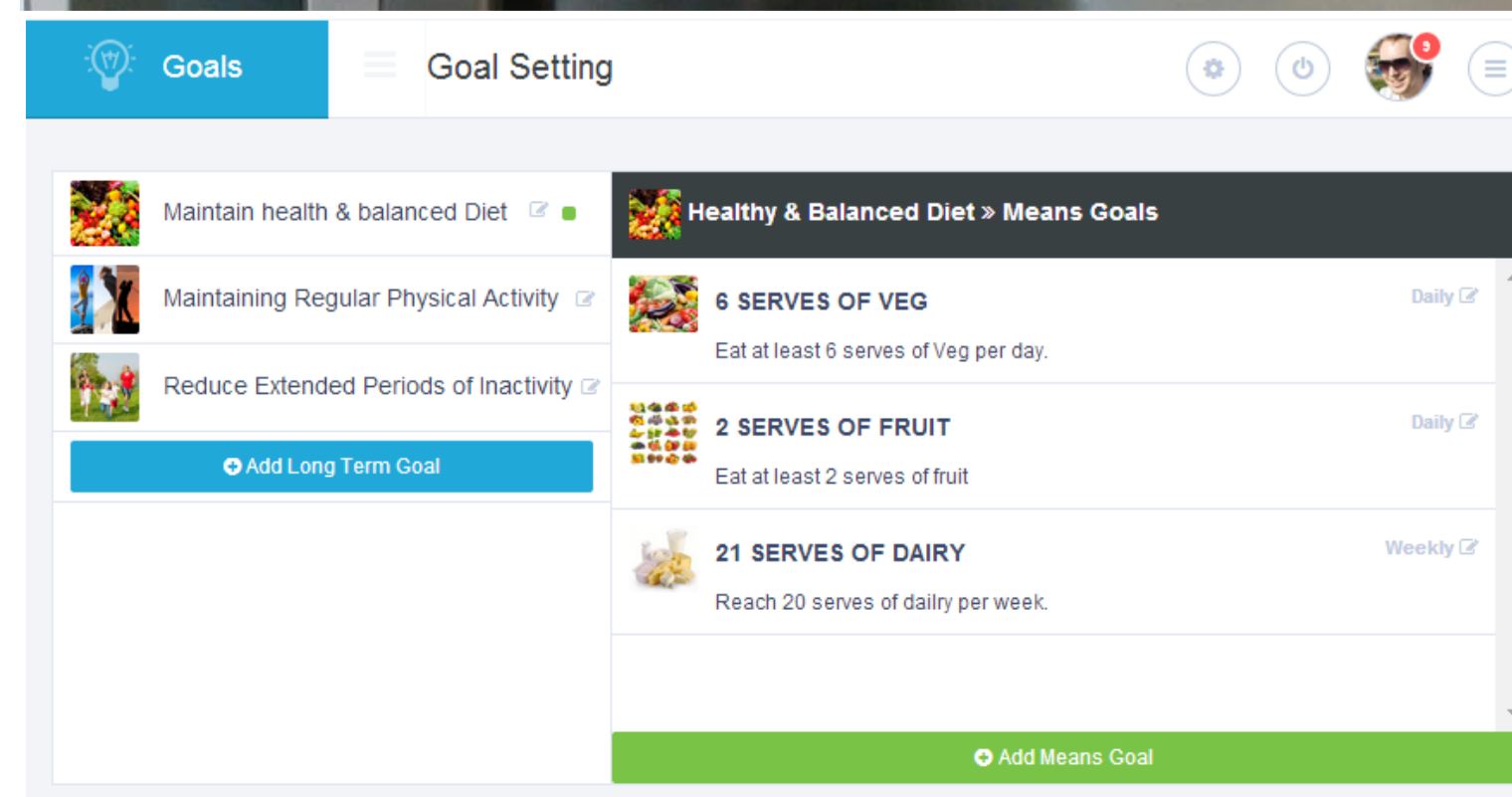
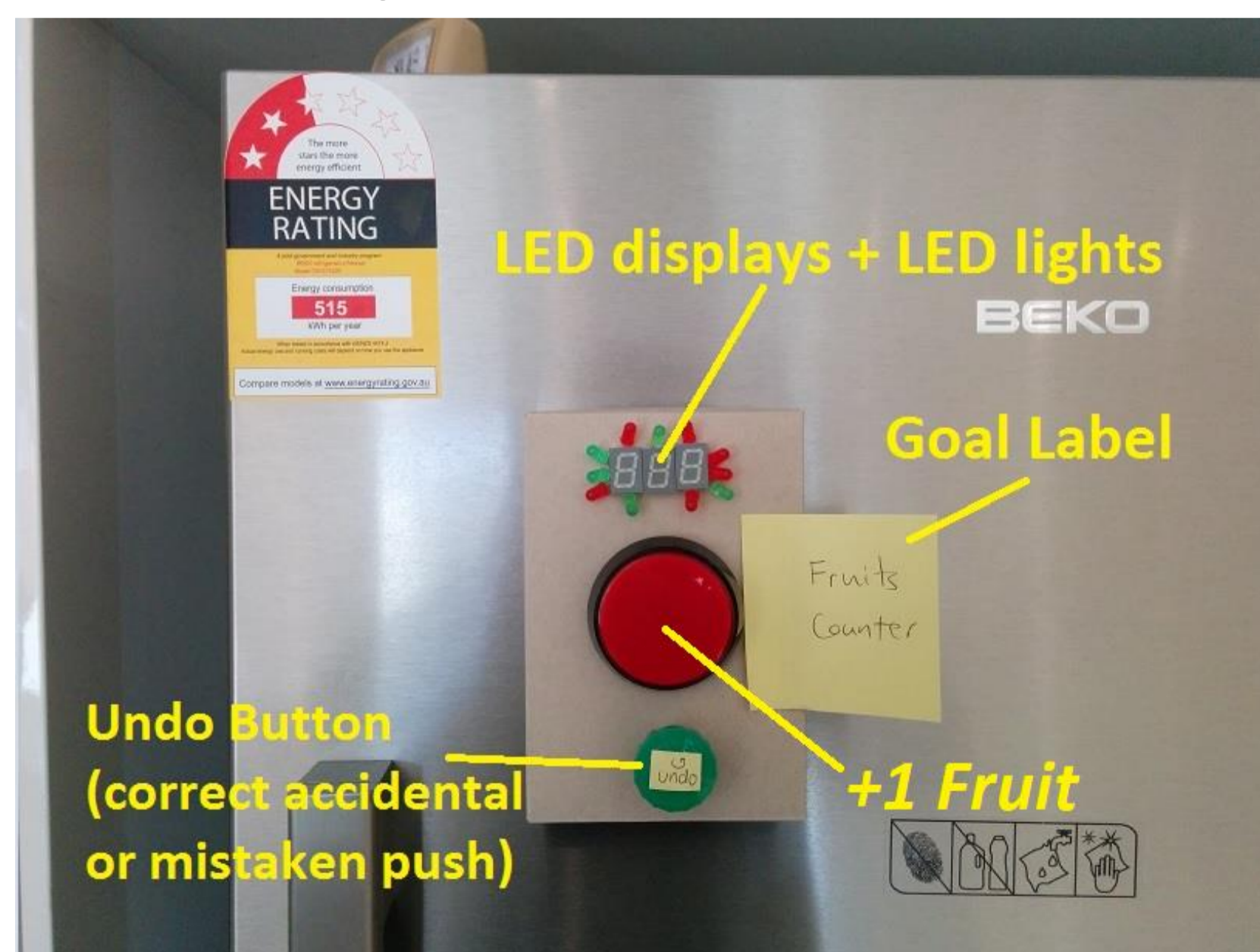
- Maintaining Motivation
- Forgetfulness
- Lack of Time / Self Management Skills
- Self Efficacy
- Social Support



## 5. RESEARCH GOALS

1. Design and study the effectiveness, applicability and design considerations for Tangible User Interfaces and Ambient displays in promoting long term goals.
2. Design User Interfaces and Visualizations to support Long Term Goals.
3. Design Gamification of Tangible User Interfaces for promoting long term goals.

Exploratory Research Prototype:  
Example goal, 2 serves of Fruit a Day.



## 3. EXISTING IT TOOLS

### Limitations & Challenges of Apps:

- Not another app!
- I get too many emails, reminders and notifications.
- Miss call! I left my phone in the bag.
- Where is my charger?



### Other tools & challenges:

- Ergonomics of wearables.
- Affordance.
- Adoption and Usability.

## 6. PROTOTYPE DESIGN

### Tangible Internet Connected Goal Button

- Self record goal, LED counter to indicate goal achievement.
- Place in the context relevant place. E.g., on the Fridge for nutrition and diet type goals.
- User Interface to set / configure Goal buttons and visualization of Achievements.

### Gamification

- Reward daily or periodic achievements.
- Rewards can be in the form of music and / or LED displays.
- Different rewards for different achievements and the ability to personalize rewards (keep it interesting).

### Limitations & Challenges

- Applicable to certain goal domains (i.e., more suited to one location at a time).
- Display and act on one goal at a time.
- More effective in context relevant and noticeable locations.

