

CHALLENGE BRIEF

SmartSharing Fridges

Background



WE SHARE TO SUPPORT

FUUDY is a non-for-profit organization that uses technologically-advanced public fridges to help community share food. These SmartSharing fridges will automate the surplus food redistribution process, identify and interact with donors and recipient, collect and analyze food waste data. More information can be found at getfuudy.org.

Challenge

We are now working with Arrow and university labs to build a working prototype of the SmartSharing fridge, which will contain two key components:

- Smart lock linked to facial recognition
- Sensors connected to databases to track surplus food volume, temperature, and GPS

We would like to use APIs/libraries and open source development boards to facilitate the development of the project. This includes but not limited to: Amazon Recognition, Google Cloud AI, Microsoft Cognitive Services. Using existed examples and projects are welcome, while keeping long-term flexibility and scalability in mind.

Skills we are seeking

- Knowledge in computer vision related fields, used libraries such as OpenCV, Matlab CV toolbox, SimpleCV.
- Knowledge in sound recognition related fields.
- Knowledge in robotics, preferably working with controllers, motors and other smart lock related projects, as well as authentication technology such as the RFID, phone based 2FA authentication etc.
- Hardware skills such as basic soldering, breadboard wiring etc.
- Hardware programming skills in Microcontrol Unit (MCUs) such as Raspberry Pi (RPI), Arduino, Intel Edison.

Who to contact for additional information on this challenge:

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