SMART LIGHTENINGS

F04 Group 2:
Low Eng Hao (Dan)
Soh Jun Hern
Suryono Gunawan Ali
Tong Hui Kang
Wee Jian Hui Kevin
Yip Jun Han

THE PROBLEM

Lights are often left switched on long after the users have left. Even when users are in, having only a few users in a relatively large room equates to wastage. In rooms with ample ambient lighting, the intensity of indoor lighting needed can be reduced.

THE SOLUTION

Overview

1) A visible light camera captures an image every second.
2) A script analyzes the image to determine the positions of people in the room and the room's ambient lighting.
3) The brightness of indoor lighting is adjusted accordingly to minimise wastage.

BENEFITS

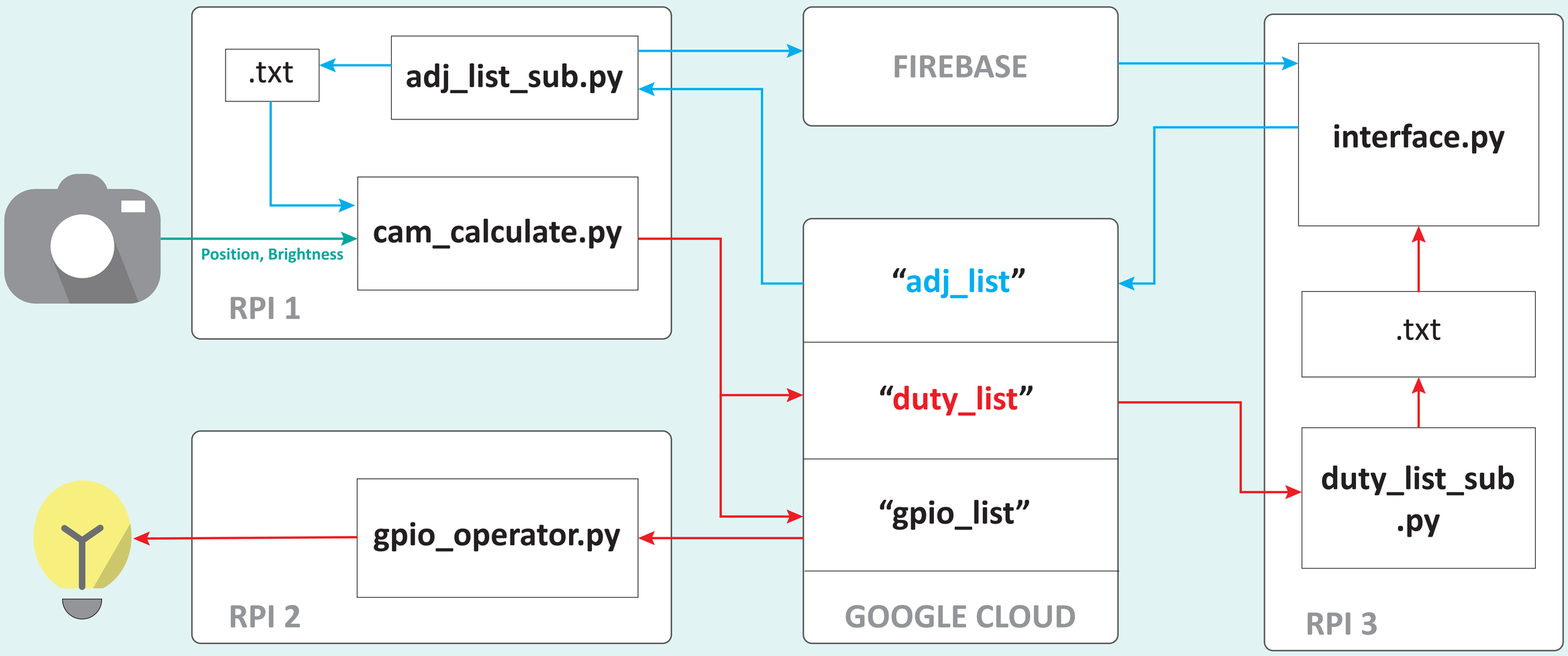
Affordable design

Our camera is used for target acquisition and brightness analysis, both of which do not require high resolution images. Hence, our choice of camera reflects as such in our budget.

Smart

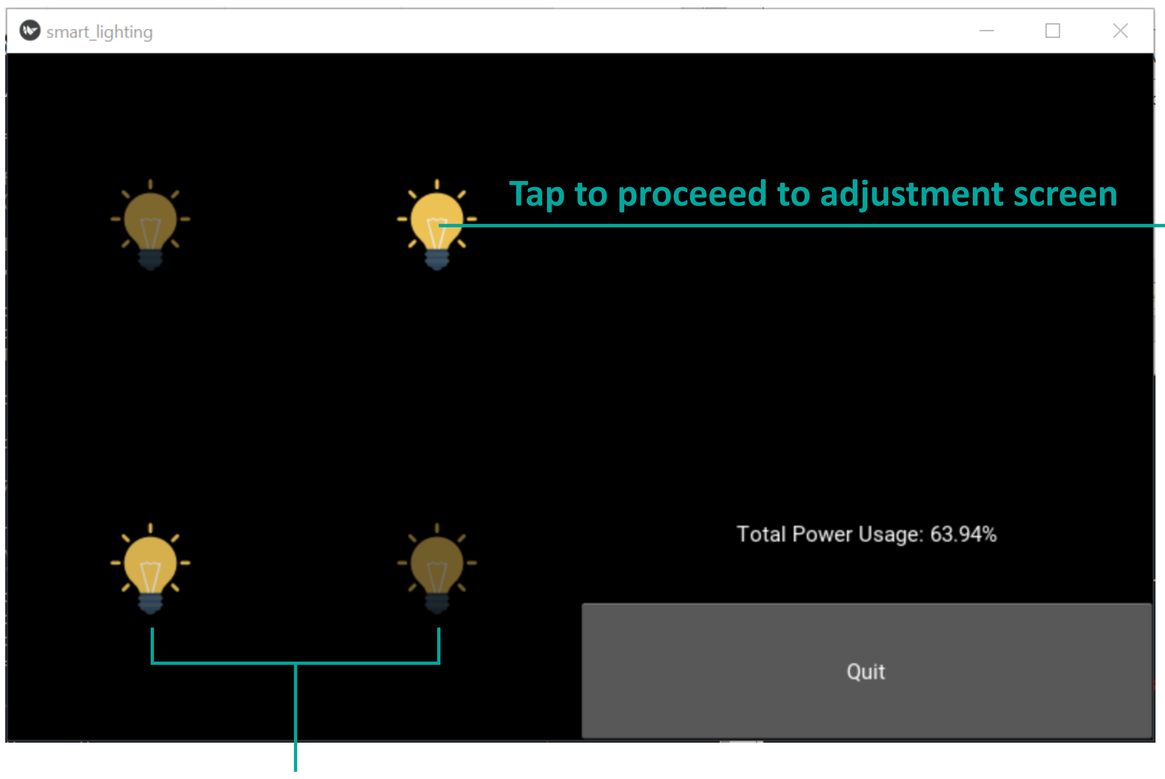
When users disagree with our programmed desired light settings, we receive feedback from them manually toggling the brightness. This user data is recorded and analysed to recalibrate a specific desired brightness by users of a particular room.

SCHEMATICS



MOBILE APPLICATION

Main Screen



Adjustment Screen