LTE 5:04

Racks

#09-02

RACK B

RACK A

◀ ● ■

Racks Screen

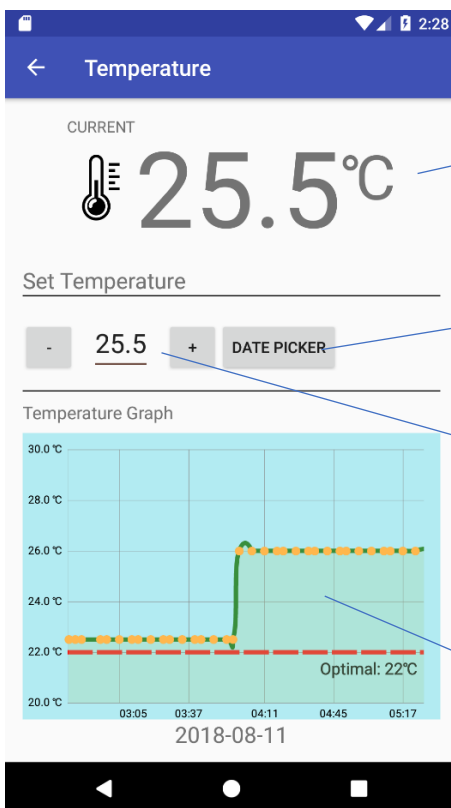- Each rack is a button that can be clicked on to go to the Tiers screen.

2:27

← **Tiers** SELECT

A-5

A-4

A-3

A-2

A-1

🌡 25.5°C 💧 52.5% **pH** 7.92

O₂ 19.14% CO₂ 2022 ppm 💡 White

✿ 2 🌿 2a 14:10:32 20/06/18

◀ ● ■
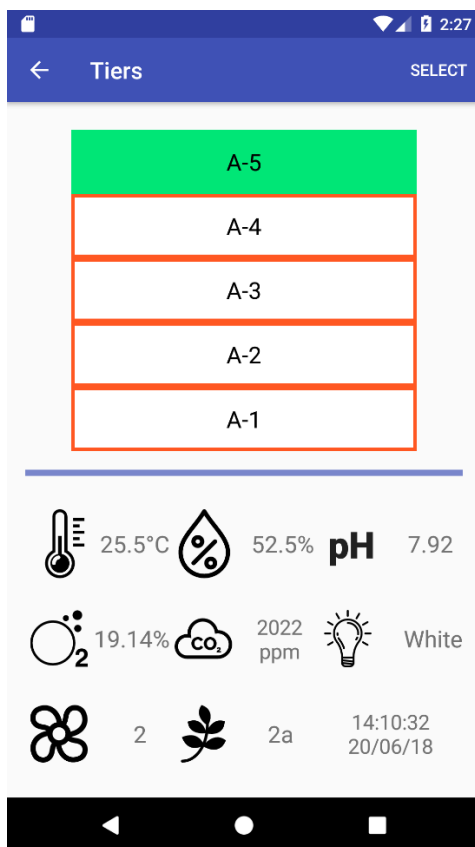
Tiers Screen

- Click on a tier to view real-time sensor values
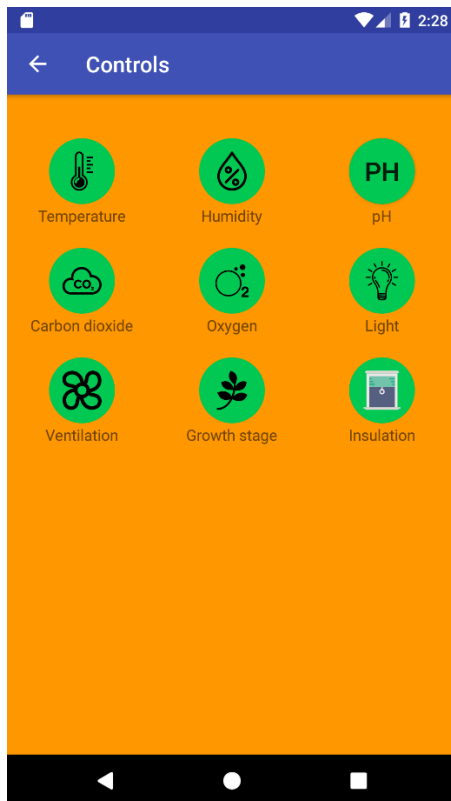
Controls Screen

Click a button to go into a detailed page for each individual parameter

Current temperature value

Select the date to display the data

To allow user to remotely control the ambient temperature of the plant factory environment.

Line chart of temperature against time for the chosen date. The chart allows for comparison between the actual values and the optimal value.
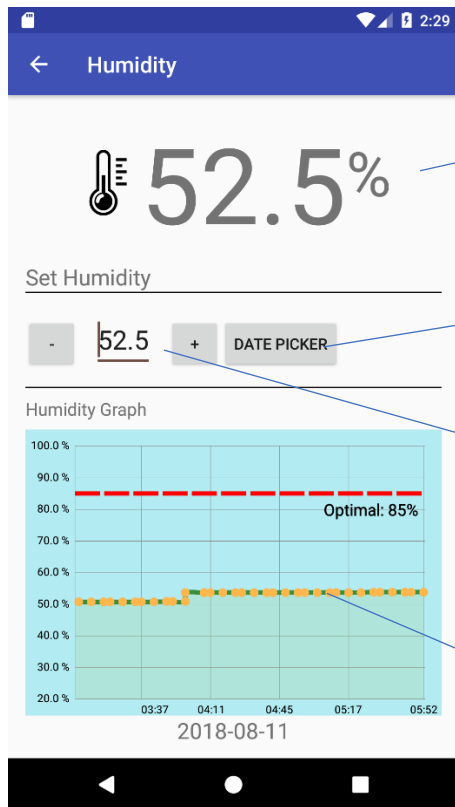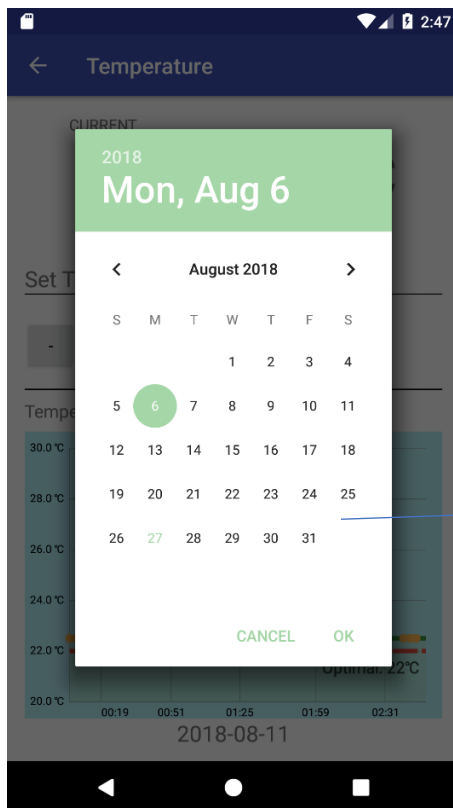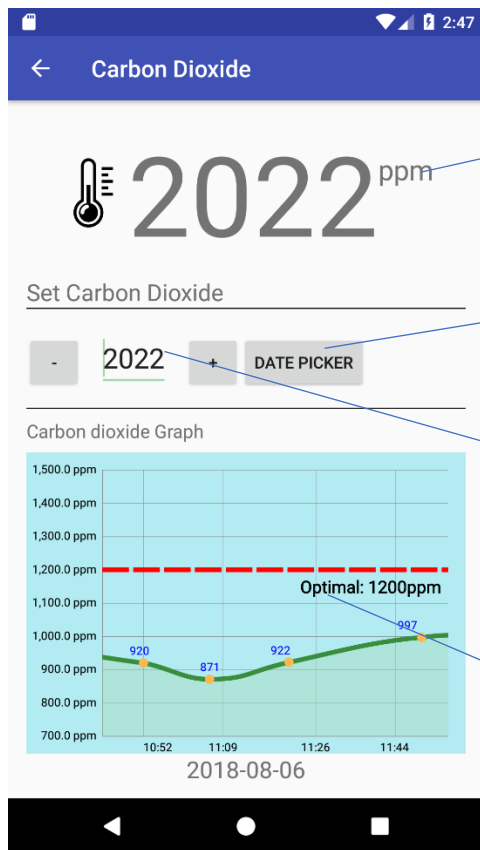
Current humidity value

Select the date to display the data

To allow user to remotely control the humidity of the plant factory environment.

Line chart of humidity against time for the chosen date. The chart allows for comparison between the actual values and the optimal value.

Date Picker for the line chart

Carbon Dioxide

2022 ppm

Set Carbon Dioxide

`-` 2022 `+` **DATE PICKER**

Carbon dioxide Graph

2018-08-06

Current carbon dioxide value

Select the date to display the data

To allow user to remotely control the CO2 of the plant factory environment.

Line chart of CO2 against time for the chosen date. The chart allows for comparison between the actual values and the optimal value.

Oxygen

19.14 %

Set Oxygen

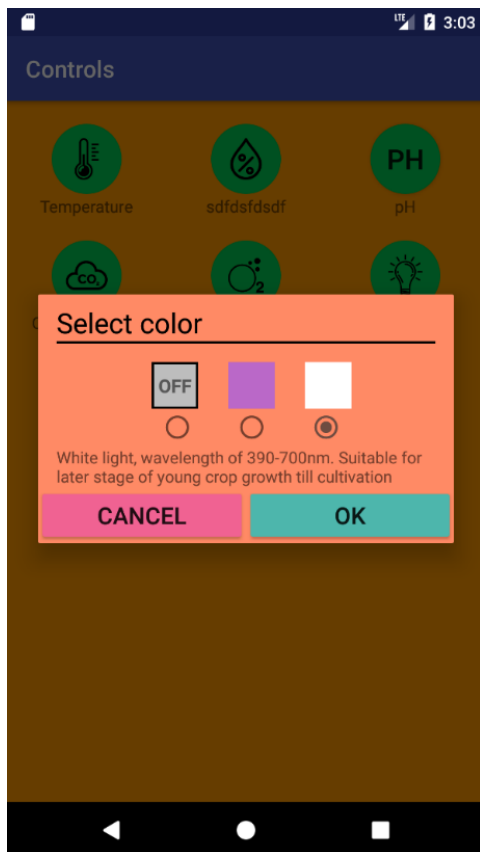`-` 19.14 `+` **DATE PICKER**

Oxygen Graph

2018-08-11
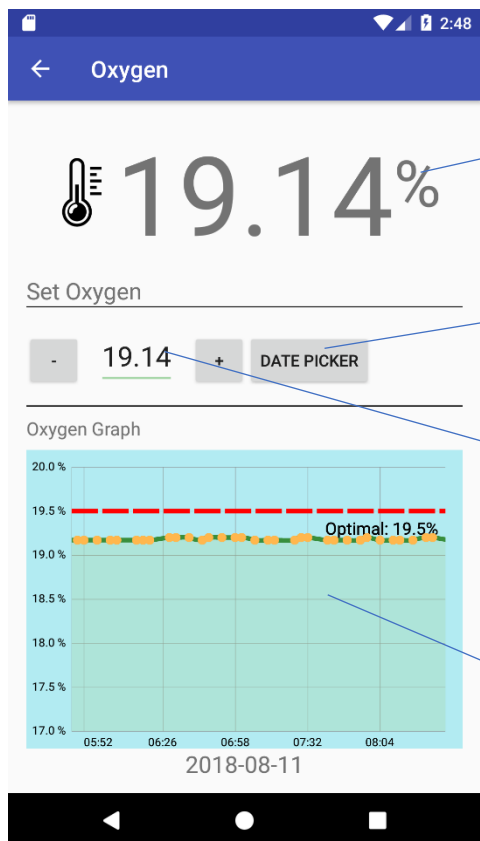
Current oxygen value

Select the date to display the data

To allow user to remotely control the oxygen levels of the plant factory environment.

Line chart of oxygen against time for the chosen date. The chart allows for comparison between the actual values and the optimal value.
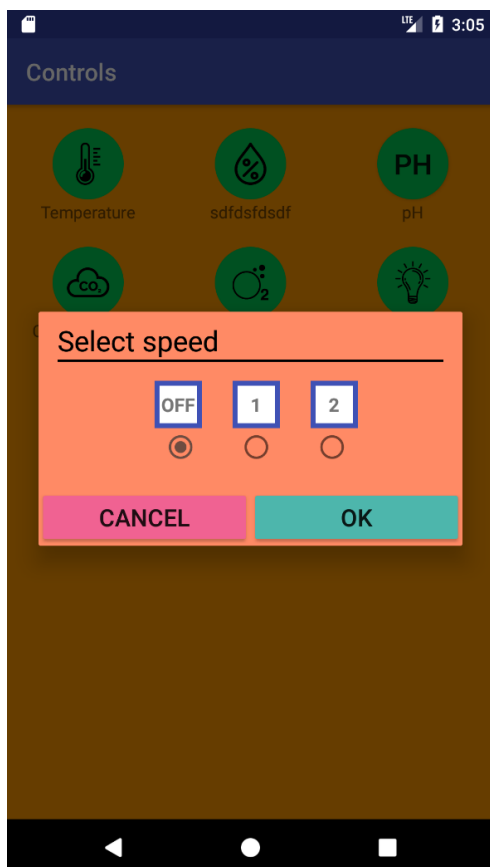
Light Selection

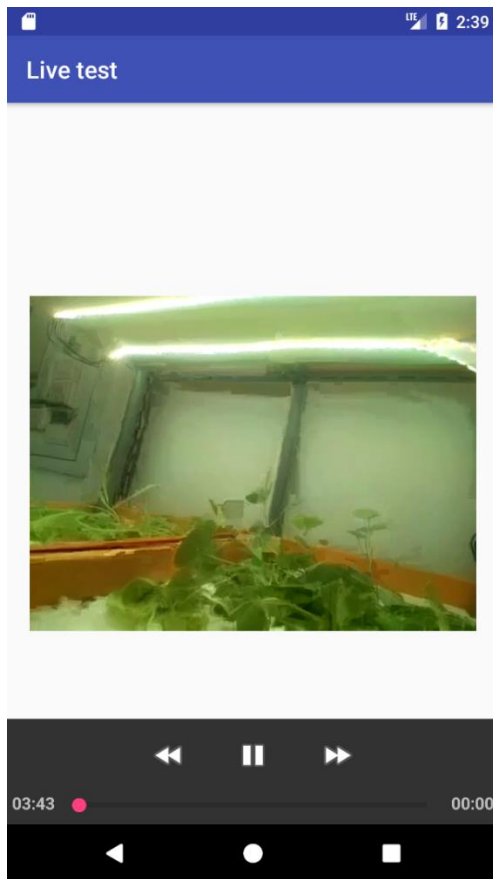Ability to select white or magenta light or to turn off the light.

White light has wavelength of 390-700nm and is suitable for late-stage young crop growth till cultivation.

Magenta light has wavelength of 500nm and is suitable for young seedlings.

Variable ventilation control

Pop-up box to control ventilation of the rack.

Real-time video feed

- Live video feed from Raspberry Pi camera to monitor status of the tier.
- Can also be used for computer vision.