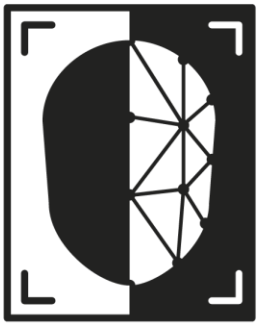

PiMirror

CA400

User Manual

PiMirror: Smart Mirror with Facial Recognition

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1. About PiMirror

1.1 Overview

Welcome to PiMirror, your new personalised home smart mirror. This guide will help teach you everything that you need to know about PiMirror.

Firstly, PiMirror, is a Raspberry Pi powered smart mirror that allows you to choose from six available modules to display on your mirror. Pick and choose which modules you wish to display at any point in time, straight from the official Android application.

The best part about PiMirror, is that once you have configured which modules you wish to display, you can utilise this system completely hands-free. Thanks to built-in facial recognition software, your trained users will be able to turn the PiMirror on simply by standing in-front of it, it will also turn off automatically once you leave too.

This system is designed to take that little bit of extra stress away from your everyday life. The selection of modules currently available are: Weather Forecast; Gmail; Google Calendar; Dublin Bus; Cryptocurrency; and News Headlines. Each of these modules can be personalised to suit your needs, directly from the android application.

Keep reading to find out how to set-up your PiMirror for the first time, and how each of the functionalities of the system work.

Let’s get started!

2. Installation Guide

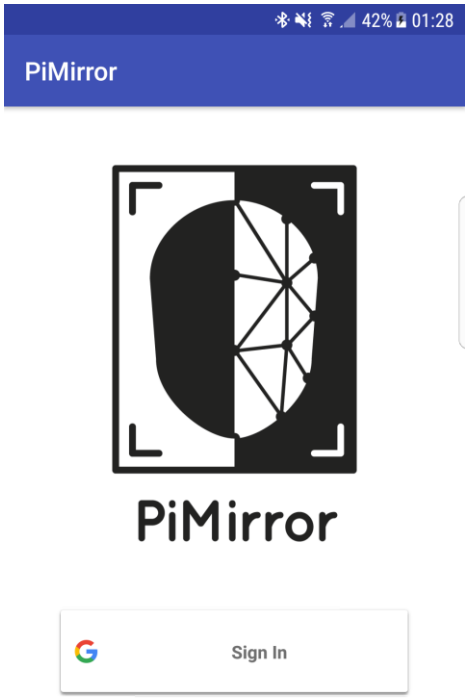
Due to the nature of this system, everything is supplied pre-installed onto the raspberry pi. During “purchase”, the user would simply send in approximately thirty pictures of each of the users to be trained onto the system, and then the pre-trained, fully-installed PiMirror would be sent to them.

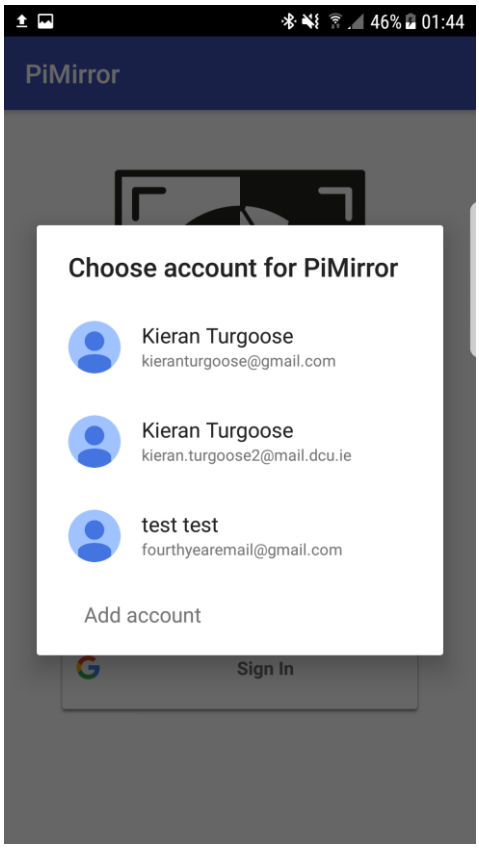
For a more in-depth procedure of how each of the components were installed onto the pi itself, please refer to the technical guide section 4.4 Component Installation.

3. Android Application User Manual

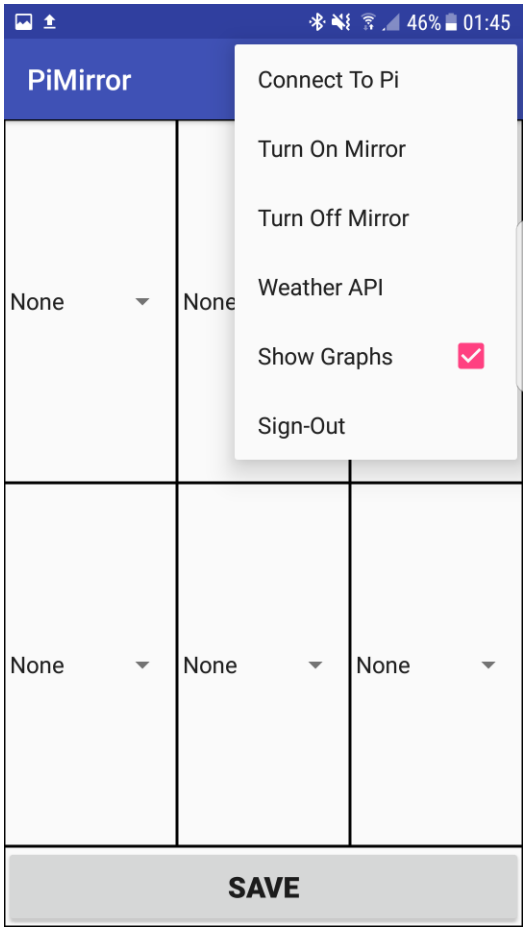
3.1 Initial Set-Up:

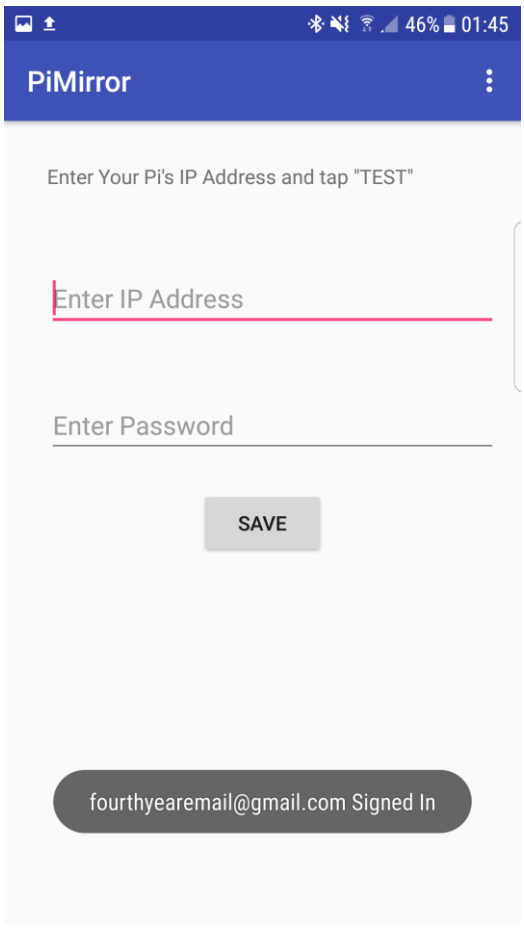
When first opening the app, you will be met with the login screen. The function of this screen is to allow the user to login through their Gmail account. Simply click the Sign In button, choose an already signed in account, or add a new one. This will then take you to the app’s main home page.





When greeted with the main page, the next step in your set-up is to ensure that you are connected to your pi. This is done by hitting the menu button in the top-right corner and clicking the “Connect To Pi” option. This will take you to a screen where you can input your username and password for your pi. Once save is clicked, you will be returned to the main page, granted that your details were correct.





You are now connected to your pi, and so there is only one step remaining for you to have full use of your PiMirror system. This step is only necessary if you wish to use the Weather Forecast module, otherwise it is not required.

You must first go to https://openweathermap.org, click the sign-up button on the top bar and fill out your information. When this is complete, go to your account details and click on the API keys tab. This API must be entered into your app in order to use the Weather Forecast module. To enter the API key into your app, tap the menu button, and tap on the “Weather API” button. This will take you to the screen whereby you can save your API key.

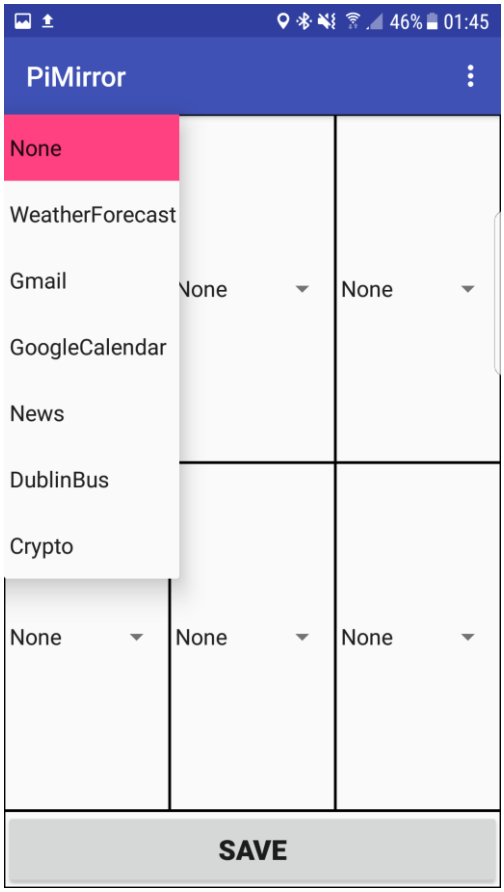
For the Google Calendar module you are required to enter your calendar’s “.ical” filepath. This is essentially the location that the calendar exists on the web. If you do not wish to have to input this every time you select the Google Calendar module, you can make your calendar public, and in turn this will make your calendar assigned to you Gmail account automatically be used of this module. If you wish for your calendar to remain private, then you must enter the filepath every time you reselect the module.

To make your Google Calendar public, go to your Google Calendar online. On the sidebar menu on the left-hand side hover over your calendar under “My Calendars” and click the options button that appears. Go to “settings and sharing”. From here, under the “Access permissions” section there is an option to make your calendar available to the public. Check this box and save your settings. Your Google Calendar module can now be run without any further inputs.

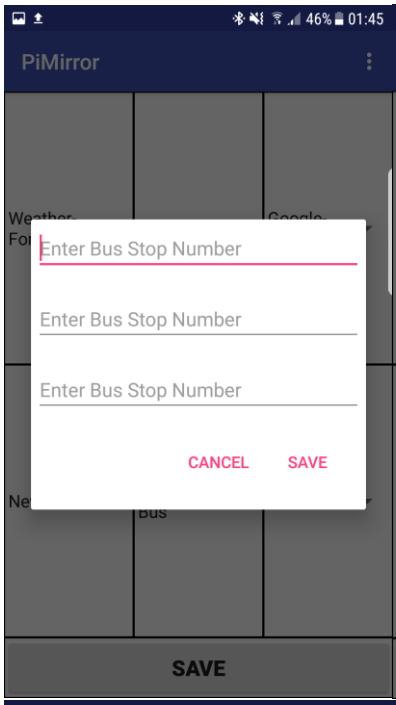
Congratulations, you are now fully set-up and ready to use your PiMirror!

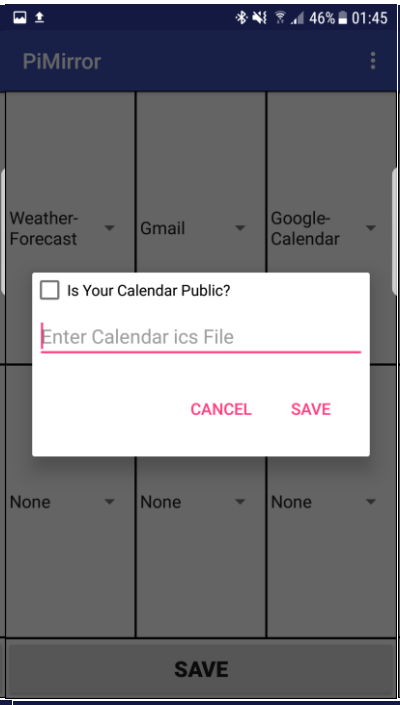
3.2 Selecting Modules:

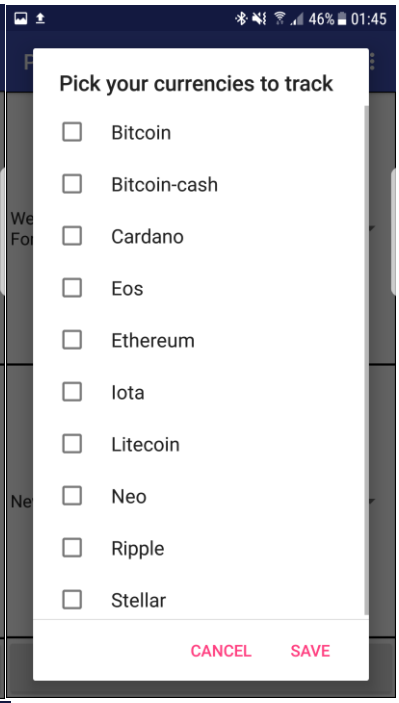
Configuring the modules to be shown on your PiMirror could not be easier. From the main page simply tap on one of the six grid positions and select a module to be placed there from the dropdown menu. Each of the six tiles represents roughly where on your PiMirror that module will be placed. Each module can be selected in each position, although due to the width of the News module it is recommended to only be placed in the top-centre and bottom-centre positions, so as not to disrupt modules beside it.

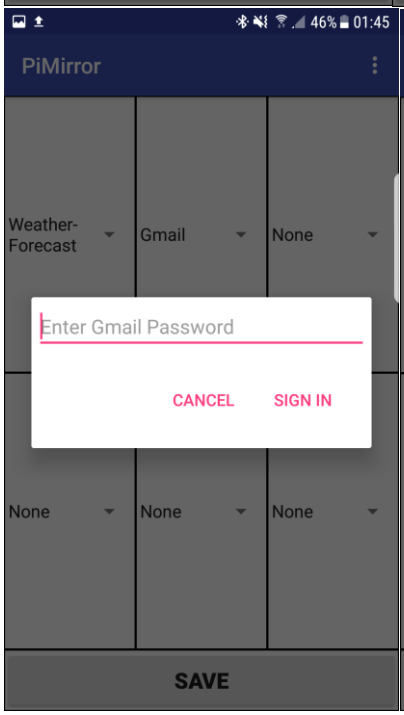


When you have selected your desired module, you will be asked for some additional information, which is dependent on which module you have picked. Each of the additional information displays is shown below. Enter your data for each module and once you have chosen all that you wish to display, click the save button at the bottom of the screen. This will complete the process of selecting your modules. Now, next time the PiMirror interface is enabled under your account, this saved configuration will be displayed.

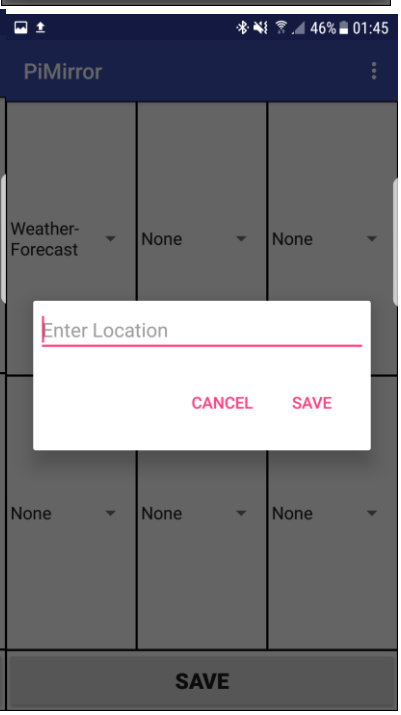

PiMirror
Enter Bus Stop Number
Enter Bus Stop Number
Enter Bus Stop Number
CANCEL
SAVE
SAVE


PiMirror
Weather-Forecast
Gmail
Google-Calendar
Is Your Calendar Public?
Enter Calendar ics File
CANCEL
SAVE
None
None
None
SAVE

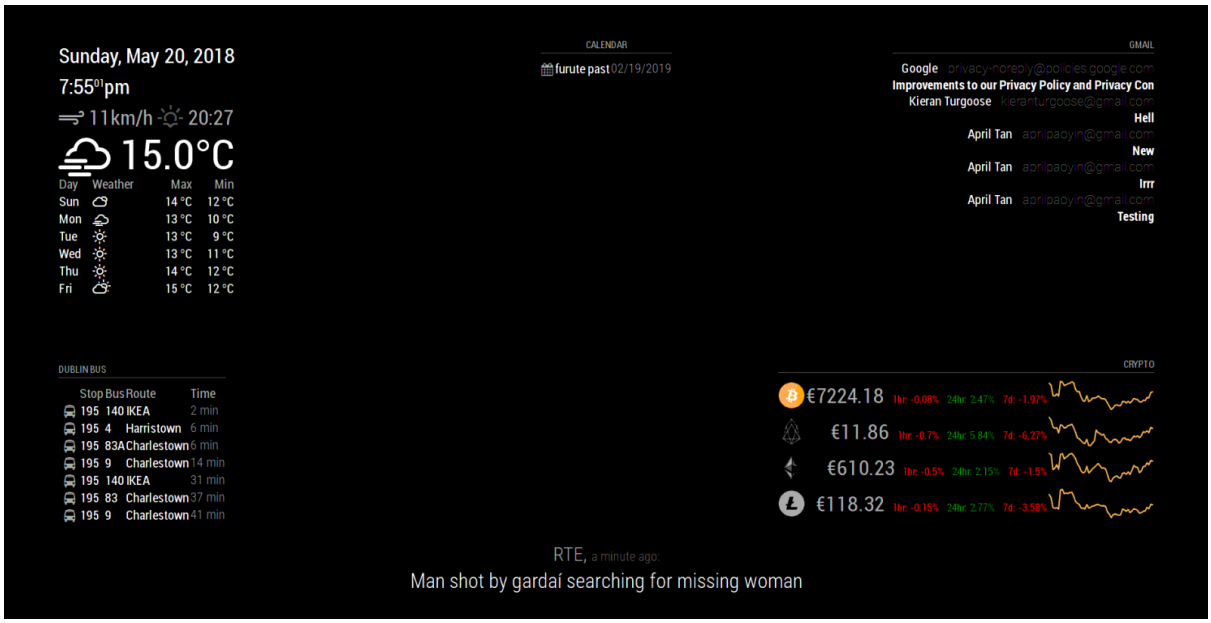

Pick your currencies to track
Bitcoin
Bitcoin-cash
Cardano
Eos
Ethereum
Iota
Litecoin
Neo
Ripple
Stellar
CANCEL
SAVE


PiMirror
Weather-Forecast
Gmail
None
Enter Gmail Password
CANCEL
SIGN IN
None
None
None
SAVE


PiMirror
Weather-Forecast
Gmail
Google-Calendar
Pick news source
New York Times
Sky News
RTE
News
None
None
SAVE


PiMirror
Weather-Forecast
None
None
Enter Location
CANCEL
SAVE
None
None
None
SAVE

When you have saved all your modules your PiMirror interface will look something like this:



3.3 Turning on your PiMirror:

Turning on your PiMirror interface from the app is very easy. Providing that you have completed the set-up correctly, simply tap the menu button in the top-right corner, and tap the “Turn on Mirror” button. Your configuration will now be displayed on the PiMirror interface

3.4 Turning off your PiMirror:

Similarly to the previous step, to turn off your PiMirror interface, simply click the “Turn Off Mirror” button in the menu.

3.5 Enable/Disable Graphs for Cryptocurrency Module:

The cryptocurrency module has the ability to display graphs that show the market fluctuation of the selected currencies over the last seven-day period. These are enabled by default. However, if you wish to disable these simply press the “Show Graphs” button in the menu. The checkbox should become unchecked. Click save on the main page to commit these changes. You will now see your cryptocurrencies in a table format, with no graphs displayed.

Repeat these steps to re-enable the graphs.

3.6 Sign-Out:

To sign out from the application, click the “Sign-Out” button in the menu. This will return you to the login screen.

Thank you for taking the time to read this user manual. I hope you enjoy your purchase.

Regards,

- ***Team PiMirror***