SmartPID - Brewfather

integration guideline

Brewfather vs SmartPID

Brewfather is one of the best platform for recipe design and brewing experience on both desktop and mobile devices. With a modern design that is easy to use interface allow any hobrewer to design the recipe and manage the brewday

SmartPID is a powerful and flexible controller for complete BIAB/RIMS brewing process automation and recipe management as well fermentation temperature control. SmartPID is wifi connected for data logging and remote process control via web and mobile
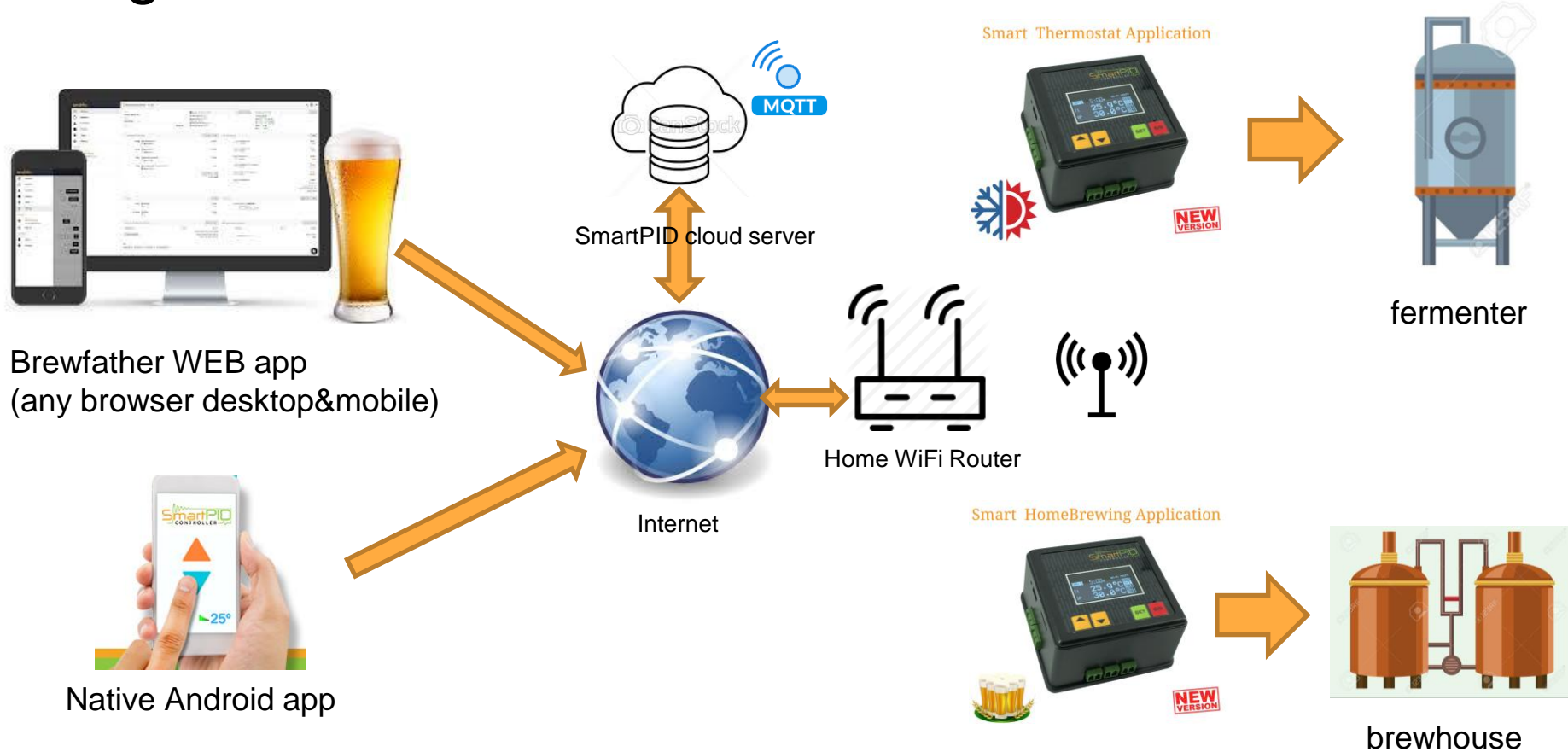
Design   Plan   Execute   Track   Analyze

Integration architecture

Brewfather WEB app
(any browser desktop&mobile)

Native Android app

SmartPID cloud server

Internet

Home WiFi Router

Smart Thermostat Application

NEW VERSION

fermenter

Smart HomeBrewing Application

NEW VERSION

brewhouse

Integration features

The integration of the physical process controller and the design toolo enable lot of feature and functions

- Smart Hombrewing Application
  - Remote monitor of process parameters (set point, current temperature, PID out, pump status, timers
  - Process events notification and alarms
  - Remote actions (process start/stop pause/resume, set point change, power change, pump start/stop
  - Recipe definition and upload for execution
- Smart Thermostat
  - Remote monitor of process parameters (set point, current temperature, PID out, timers)
  - Process events notification and alarms
  - Remote actions (process start/stop pause/resume, set point change..)
  - Fermentation profile definition and upload

(*) premium features

Pre-requirements

In order to perform the integration specific Firwmare level is needed on smartPID NOTICE that both classi **DIN box** controller and new **CUBE** version are fully compatible with BrewFather

Smart Homebrewing ⇒ version 1.3-010

Smart Thermostat ⇒ version 0.5-014

Download the FW from the [wiki page](http://smartpid.com/wiki-page/) on the web site and upgrade as usual

http://smartpid.com/wiki-page/

Integration logical steps

Sign up or login Brewfather account (30 days free premium)

Enable SmartPID controller in the brewfather settings

Register SmartPID account
- If you have a SmartPID account (android app) you can sign in using it
- if you don't have a SmartPID account you can register new one (and you can use on android app)

Sign in with your account and add your device via serial number

FOR THE SMARTPID CONTROLLER WIFI AND MQTT SERVER CONFIGURATION PLEASE REFER TO THE SPECIFIC GUIDE

http://smartpid.com/wiki/doku.php?id=demo_tutorials

1. Login/Sign Up Brewfather account

open https://web.brewfather.app

SingUp for a new account

or

Login with your Brewfather credentials

Please sign in to

Brewfather

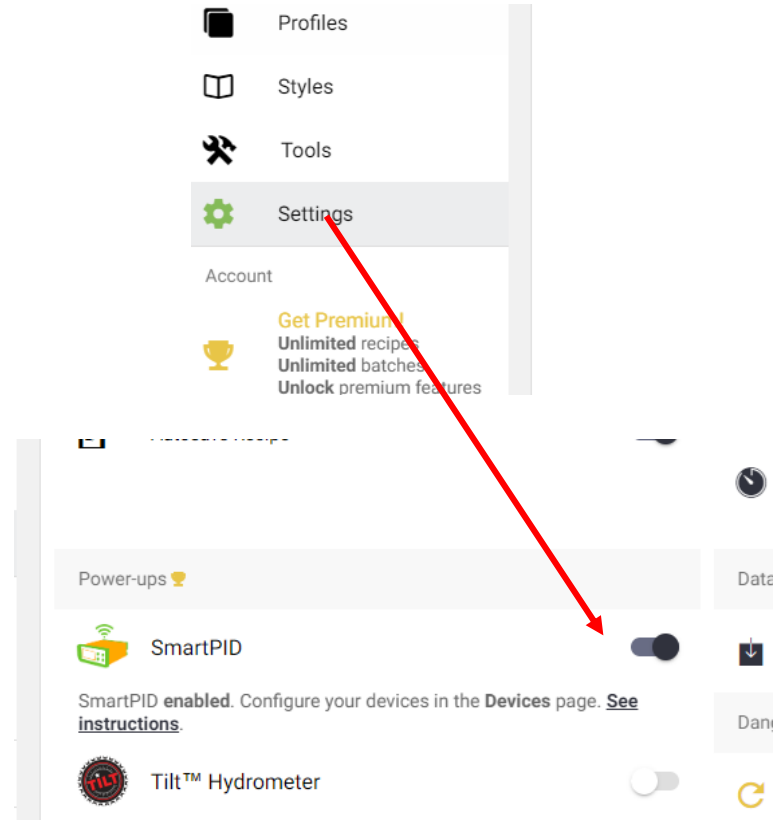Email

Password

LOGIN

SIGN UP

forgot your password?

or click to sign in with...

2. Enable SmartPID controller

Open Settings page

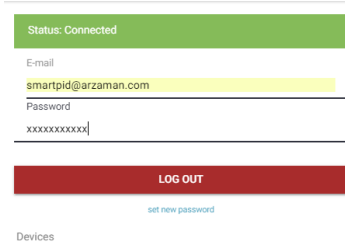Enable SmartPID controller

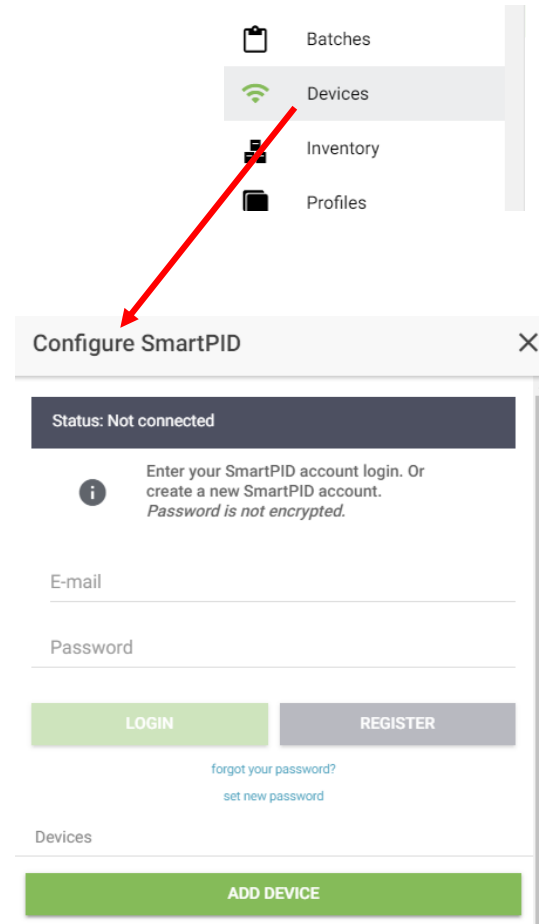# 3. Register SmartPID account

go to devices page

click on configure

1. register for a new account
2. login with existing account credentials

if the registration is successful you get notification

Status: connected

**Notice that account administration is common
with native android app**

	Batches
📶	Devices
	Inventory
	Profiles

Configure SmartPID ✕

Status: Not connected

ⓘ Enter your SmartPID account login. Or create a new SmartPID account. *Password is not encrypted.*

E-mail

Password

LOGIN	REGISTER

forgot your password?
set new password

Devices

ADD DEVICE

Status: Connected

E-mail
smartpid@arzaman.com
Password
xxxxxxxxxxx

LOG OUT

set new password

Devices

4. Add new smartPID controllers

from configure window click "add device" button

Insert a name for your smartPID controller

Select the proper application (homebrewing / thermostat)

enter the 12 characters serial number

enable CH1 and/or CH2 monitor

Save to add to your device list

Configure SmartPID ×

Configure SmartPID Device

Name
My SmartPID

Mode
Homebrewing ⊙
Thermostat ○

Serial NO
03000103843913

Enter the 14 character serial number

☑ Channel 1
Name

☐ Channel 2
Name

CANCEL   SAVE

Operational Mode - Homebrewing

Remote commands

Monitor dashboard MASH

Monitor dashboard HLT

Events notification

Process parameter settings

Updated just now — Smart HomeBrewing — Manual

STOP | PAUSE | RESUME | PUMP ON | PUMP OFF

MASH — Manual

Temperature °C	Set Temp °C	Power %
22,7	24,0	19

Pump	Total Time
OFF	11d 03:40:19

SET TEMP | SET POWER | SET DURATION

HLT — Manual

Temperature °C	Set Temp °C	Power %
22,9	40,0	0

Total Time
11d 03:40:19

SET TEMP

Events
00:33:45 Resume
00:33:42 Pause

Operational Mode - Smart Thermostat

Remote commands

Monitor dashboard CH1

Monitor dashboard CH2

Process parameter settings

Events notification

Updated just now   **Smart Thermostat**   Standard

▶ START   ■ STOP   ❚❚ PAUSE   ▶ RESUME

CH1 Fermenter 1   Heating

Temperature °C	Set Temp °C	Power %
22,2	25,0	41

Total Time	Step Countdown
9d 23:12:24	05:00

🌡 SET TEMP   🕐 SET DURATION

CH2 Fermenter 2   Heating

Temperature °C	Set Temp °C	Power %
22,2	40,0	0

Total Time	Step Countdown
9d 23:12:24	05:00

🌡 SET TEMP   🕐 SET DURATION

Events   **Resume** (just now)

Recipe Management (mashing)

Go in you recipe design page - section Mash Profile

Click on change and select from the template list the **Mash steps template**

Gp to edit section and fill all the time/temperature value pairs

NOTE is important you **fill ALL steps** eventually setting time to 0 min to skip one step

Select Mash Profile			×

🔍		

High fermentability 65°C		⭐
High fermentability plus mash out 65°C → 75°C		
Mash steps template 35°C → 75°C		
Max fermentability with highest yield 63°C → 70°C		
Medium fermentability		

🌡 Mash Profile (Mash steps template)	CHANGE	EDIT

Strike Temp	73.1 °C	
Phytase	35 °C	0 min
Glucanase	45 °C	0 min
Protease	55 °C	0 min
B-amylase	65 °C	0 min
A-amylase 1	68 °C	60 min
A-amylase 2	70 °C	15 min
Mash out	75 °C	15 min

✏ FINAL GRAVITY	Estimated Final Gravity: **1.010** Apparent Attenuation: **76.1%** Alcohol By Volume: **4.3%**

Recipe Management (boil-hop addition)

Go in you recipe design page - section HOPS

click on ADD button and insert your hops and time referring to boli duration

|			
🌿 Hops (75 g)			🗏 + ADD
5 g 0.22 g/l	Summit 17.0% 10.3 IBU		60 min Boil
20 g 0.87 g/l	Saaz 3.8% 5.9 IBU		15 min Boil
5 g 0.22 g/l	Amarillo 9.2% 3.6 IBU		15 min Boil
20 g 0.87 g/l	Saaz 3.8% hopstand 2.7 IBU		20 min Aroma
5 g 0.22 g/l	Amarillo 9.2% hopstand 1.6 IBU		20 min Aroma
20 g 0.87 g/l	Amarillo 9.2%		7 days Dry Hop

Recipe upload and process start

Go to batches page - brewing tab

click on the start button

select your homebrewing controller from the list

Flag the proper options and press start to push the recipe to SmartPID controller and eventually start the recipe execution

NOTE recipe is saved always in position 1 in the controller and override any recipe entered manually in that position
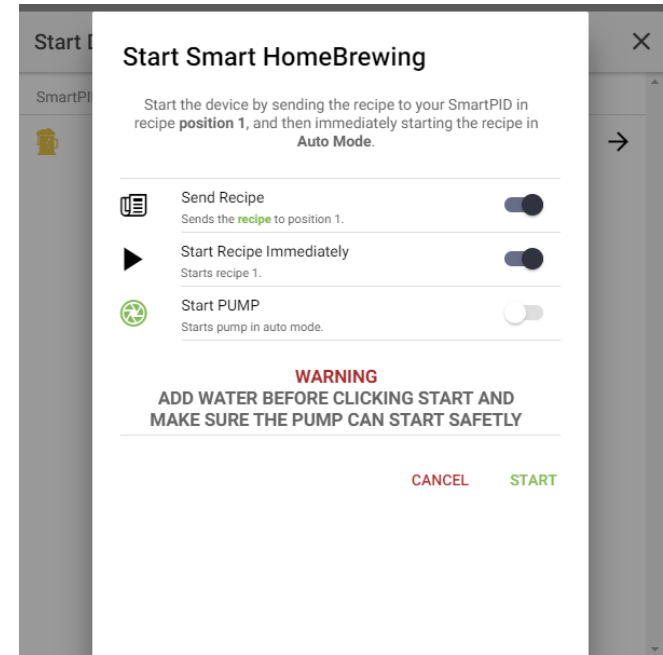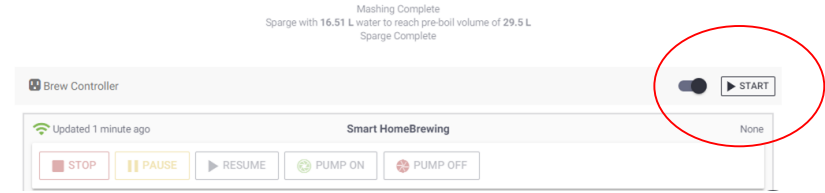
Fermentation Profile definition

Go to batches page - Fermenting tab

click EDIT button

Enter your fermentation profile in terms of set point temperature and duration and ramp (0 means instant change)
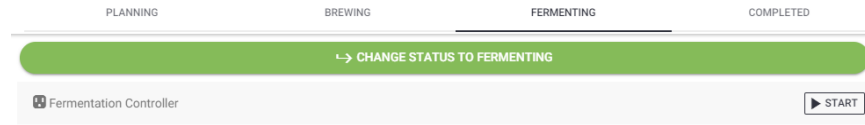
Fermentation Profile upload and process start

Go to batches page - Fermenting tab

In the "fermenting controller" section click on START

Select mode Advanced for the profile upload or standard for single set point control

Select the profile defined (advanced only) for each control channel and press start

NOTE profile is saved always in position 1 in the controller and override any profile entered manually in that position

Info & contact

Site http://www.smartpid.com
facebook http://www.facebook.com/smartPID
Twitter https://twitter.com/smart_PID
@smart_PID
Istagram https://www.instagram.com/smartpid
Pinterest http://www.pinterest.com/smartPID
You tube https://www.youtube.com/c/smartPID

Site https://brewfather.app/
Facebook https://www.facebook.com/brewfather
Twitter https://twitter.com/brewfatherapp
Istagram https://www.instagram.com/brewfatherapp

Youtube
https://www.youtube.com/channel/UCcu17qgEC20U
Bj7YrVH3k8g