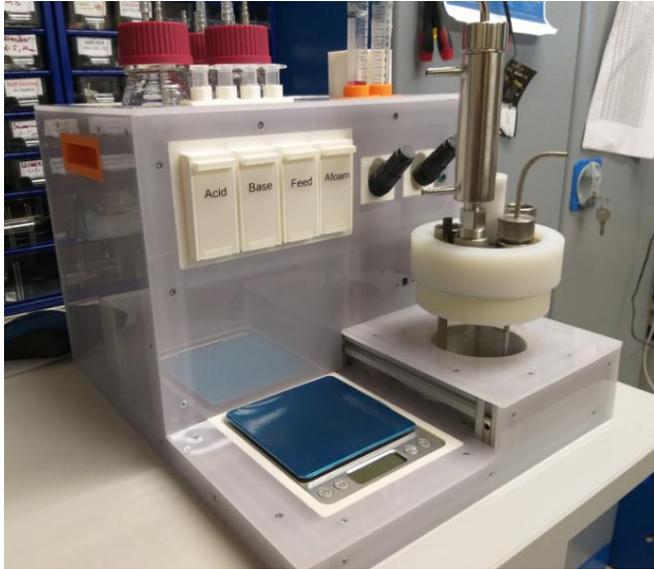# jFermi

jFermi is a fully featured low-cost smart fermentor 4All

- Batch Fermentation
- Fed-batch Fermentation
- Continuous Fermentation

- Fully Web Based
- Mobile Compatible
- Plug & Play Sensors
- Fully Customizable

- Ethernet (LAN)
- USB 2.0
- Modbus RTU

Easily configurable and extendable with plug-and-play sensors.

Web based, mobile compatible Graphical User Interface.

Can be connected into blocks without limitations.

Supports M2M APIs for controlling the fermentation process.

- **EDUCATION**
- **BIOHACKING**
- **PROFESSIONAL USAGE**

As a unique feature, the device is user customizable in JavaScript language over its web interface.

With 50-450 mL vessels.

FEATURES

- Batch/Fed-batch/Continuous fermentation
- Reporting
- Blockable
- **M2M interface**
  - XML
  - JSON
- Web Interface
- Mobile Compatible
- **Sensors**
  - pH (Analog /Digital)
  - Dissolved Oxygen (galvanic/polarographic/optical)
  - Temperature (Pt1000/NTC)
  - Off gas (CO_2, O_2)
- **Controls**
  - Feed/Acid/Base/Antifoam pumps (0.7-20 mL/min)
  - Air flow (MFC 0-500 mL/Air pump)
  - Heating/ Cooling (Peltier, 10-50 ^{o}C)
  - Stirring (0-2000 rpm)

AtlasScientific
Environmental Robotics

POWERED BY Raspberry Pi

SPECIFICATION

Power

- Supply voltage: 220 VAC
- Internal voltage levels: 24 VDC, ±12 VDC, ±5 VDC, 3.3 VDC
- P_{max}: 200 W

Communucation interface

- LAN 10/100 Mbps (RJ-45)
- USB 2.0
- Modbus RTU, UART/I^2C/RS232/Analog

Control interface

- 1x main power switch
- 3x LED indication of current states

Package contents

- jFermi (house, reactor)
- Power cable (1 m)
- Quick installation guide
- Administration guide

- jFermi house: 260 x 240 x 320 mm (w x h x d)
- jFermi reactor: 50-450 mL
- Weight: 6 kg

jFermi – 4All