



atSpiro

ShakeReactor

**Streamline lab cultivations
and let scientists focus on science**

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Increase Capacity

10 minutes setup

Space efficient

Single-use components



atSpiro

ShakeReactor

Sample production

Media screening

Strain selection



atSpiro

ShakeReactor

Organism & target

Workflow & setup

Limitations & opportunities



atSpiro ShakeReactor

**Turn shake flasks
into bioreactors**

fully wireless, battery powered



Patented

atSpiro

atSpiro ShakeReactor

**Turn shake flasks
into bioreactors**

fully wireless, battery powered

**Single-use sensor &
liquid container**

fast and reliable workflow



ShakeReactor Setup

Setup

- 10 minutes
- 500, 1000 mL flask *
- Baffled & non-baffled



* Corning® polycarbonate Erlenmeyer flasks

ShakeReactor Setup

1. Insert sensor into flask

Monitoring

- pH
- DO
- Ambient temp
- Ambient humidity

ShakeReactor Setup

1. Insert sensor into flask
- 2. Fill liquid containers**

Dispensing

- 3 x 50 mL containers
- Automatic priming
- Precise logging

Compatible

- Viscous feeds
- Acids, bases

Dispensation Profiles

Control

- Automatic
- Remote trigger

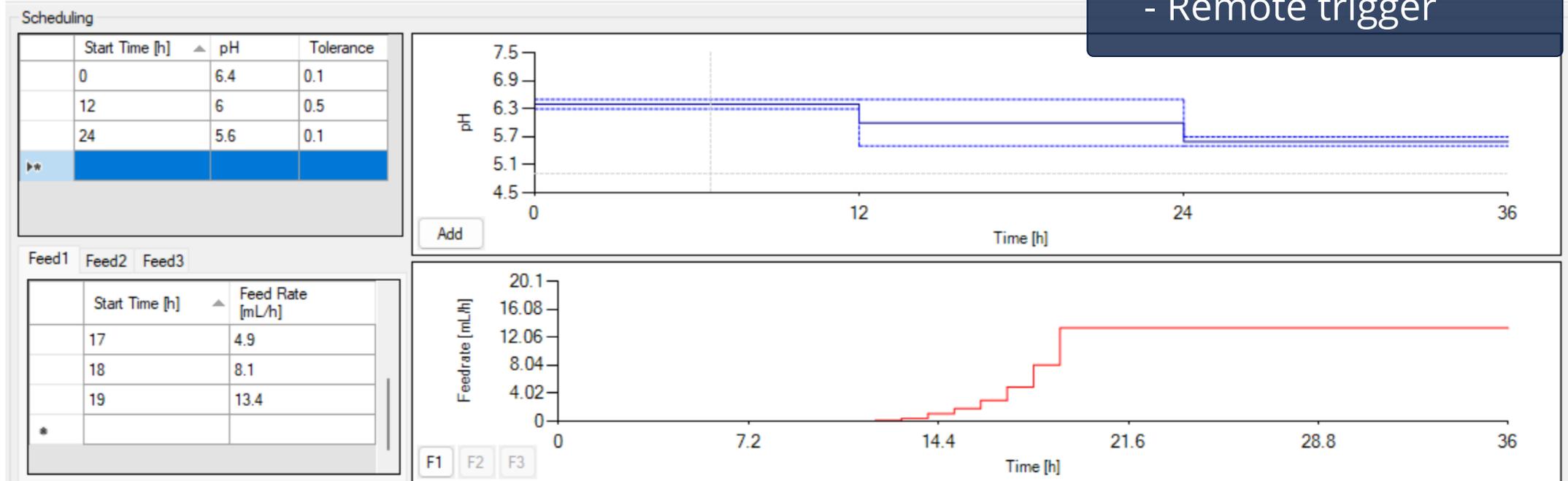
pH



Dispensation Profiles

Control
- Automatic
- Remote trigger

pH

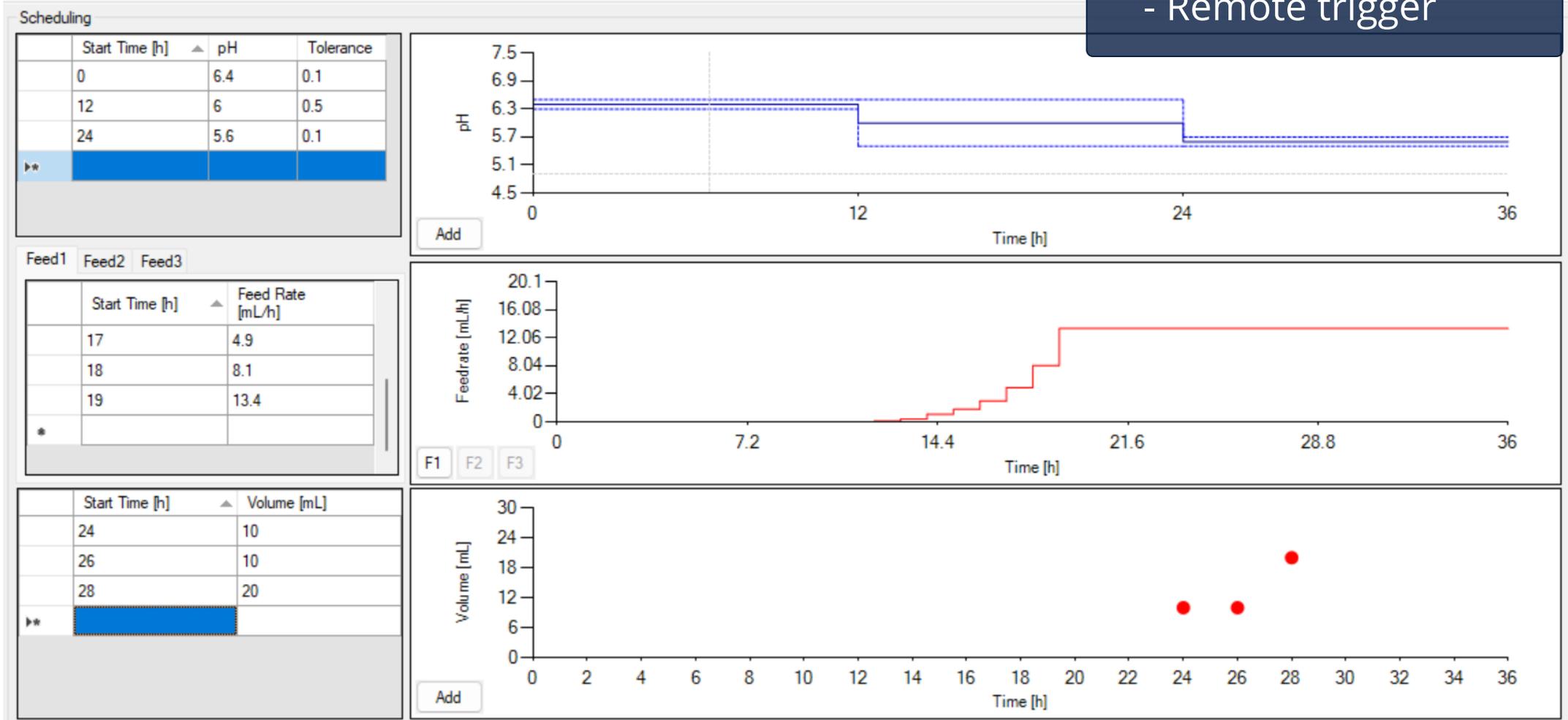


Feed

Dispensation Profiles

Control
- Automatic
- Remote trigger

pH



Feed

Bolus

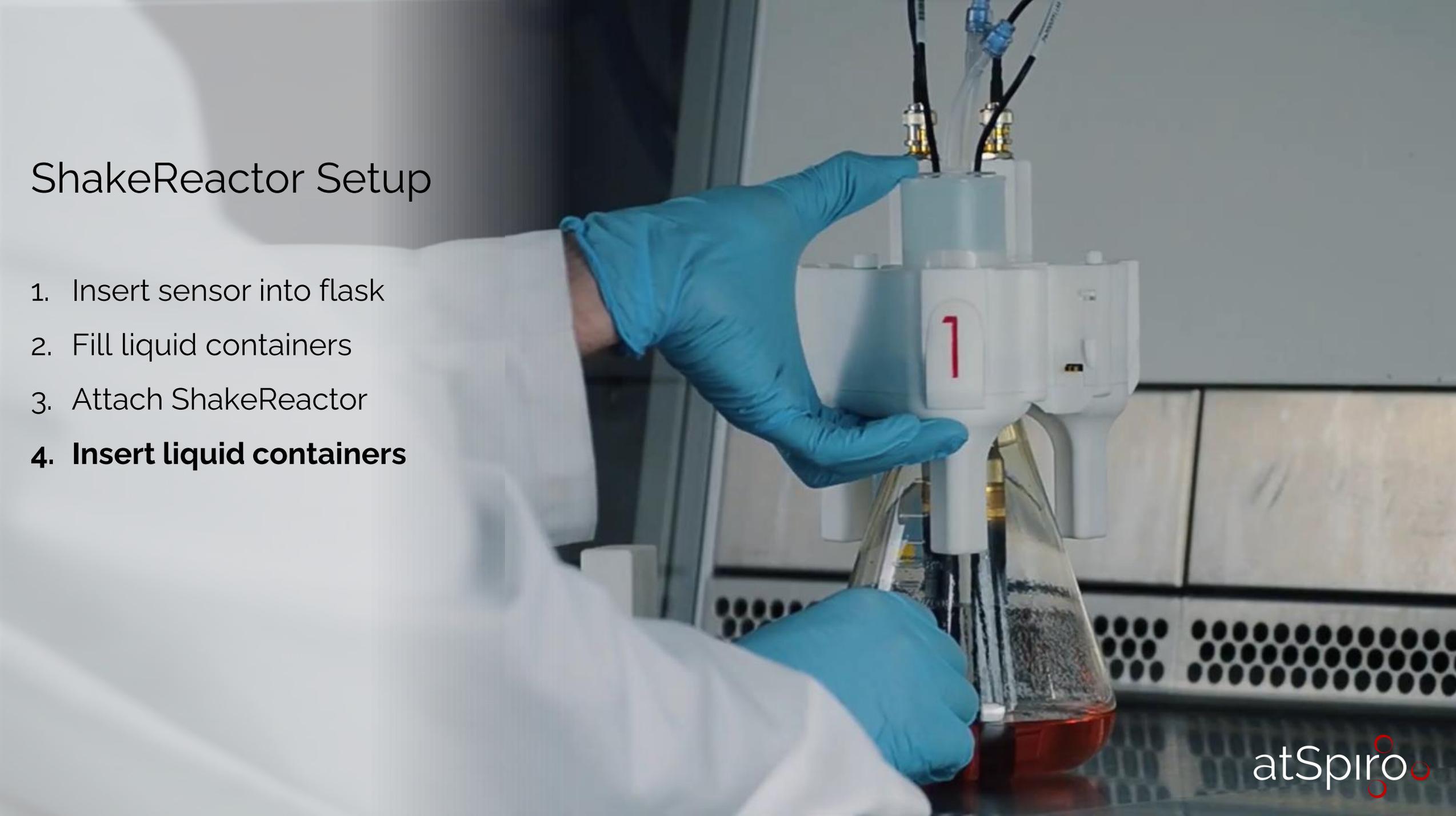
ShakeReactor Setup

1. Insert sensor into flask
2. Fill liquid containers
- 3. Attach ShakeReactor**



ShakeReactor Setup

1. Insert sensor into flask
2. Fill liquid containers
3. Attach ShakeReactor
- 4. Insert liquid containers**



ShakeReactor Setup

1. Insert sensor into flask
2. Fill liquid containers
3. Attach ShakeReactor
4. Insert liquid containers
- 5. Insert battery**

Battery

- Rechargeable
- 9 days standard
- 18 days double

ShakeReactor Setup

1. Insert sensor into flask
2. Fill liquid containers
3. Attach ShakeReactor
4. Insert liquid containers
5. Insert battery



ShakeReactor Setup

1. Insert sensor into flask
2. Fill liquid containers
3. Attach ShakeReactor
4. Insert liquid containers
5. Insert battery
6. **Inoculate**

Access ports

- Luer lock connectors
- Easy sampling

ShakeReactor Setup

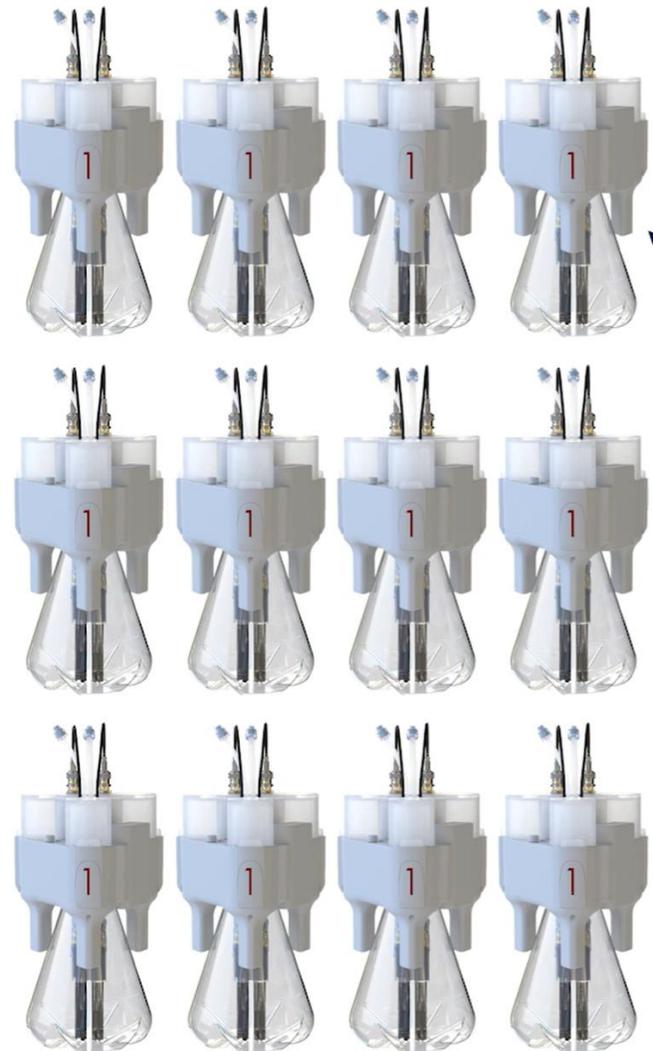
1. Insert sensor into flask
2. Fill liquid containers
3. Attach ShakeReactor
4. Insert liquid containers
5. Insert battery
6. Inoculate
- 7. Start shaking**

High RPM clamp

- Universal mount
- 300 RMP @25 mm
- 200 RPM @50 mm



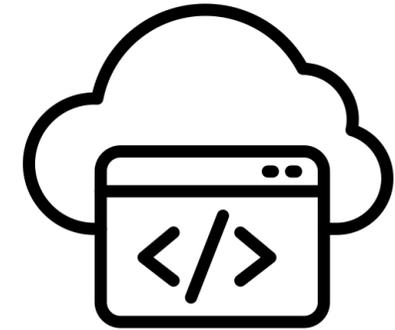
Wireless setup



BioHub

Connection

- Fully wireless
- Independent network
- Local network option



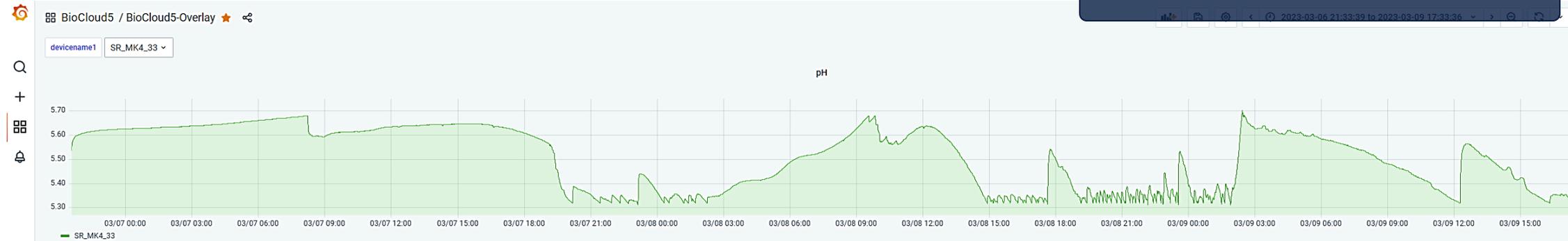
Cloud

Data monitoring

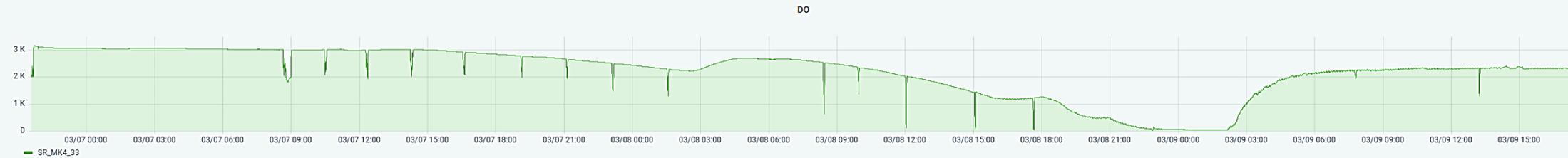
Web application

- Online & real time
- Phone compatible
- CSV data export

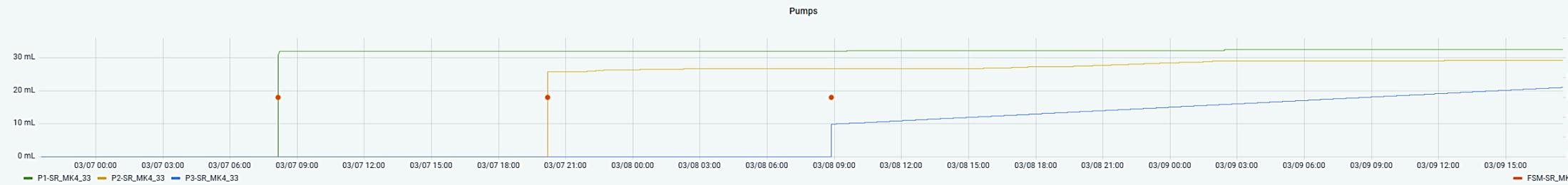
pH



DO



Disp.



Most customers start with

x1



x6



Lab setup ~ 38.000 EUR

Single-use set



180 EUR /set

Rent before you buy

1-month standard package:

- 2 atSpiro ShakeReactors
- 1 BioHub
- 6 single-use sets

Option to extend & scale up

Price: ~6,500 EUR



Interested? Reach out!
toke@atspiro.com

Full support throughout

- Protocol development (translate existing)
- Planning experiments
- On-site training & setup
- On-site 1st cultivation support
- Review experiments and data