



CBDSTM

HEALTH INC.

with  **growbuddy**
Grow Smarter

Corporate Deck



ABOUT US & WHAT WE DO

CBDS Health and GrowBuddy offer an integrated Internet of Things (IoT) solution for cannabis data capture and analytics from seed to pharmaceutical.

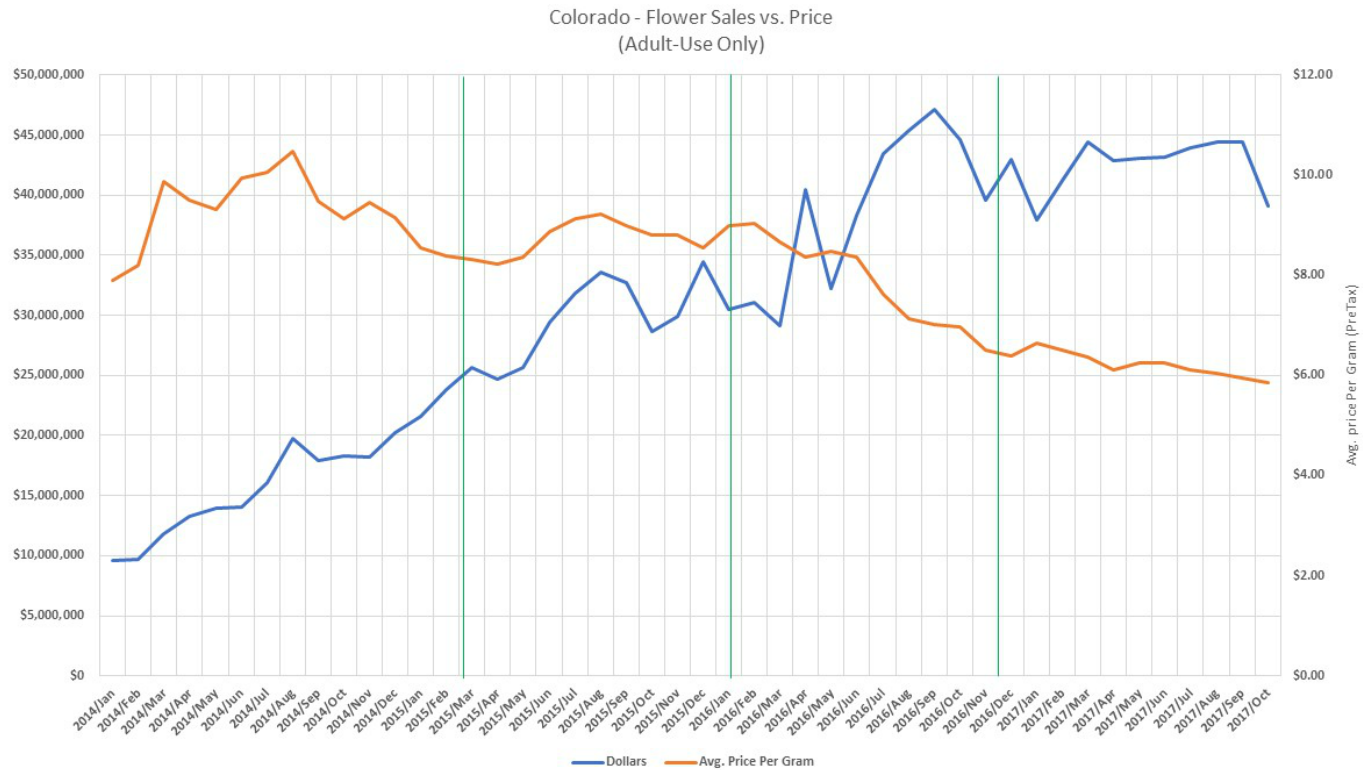
The IOT

The Internet of Things refers to the connected system of devices and applications that collect data which is then provided to cloud-based systems through online computer networks.

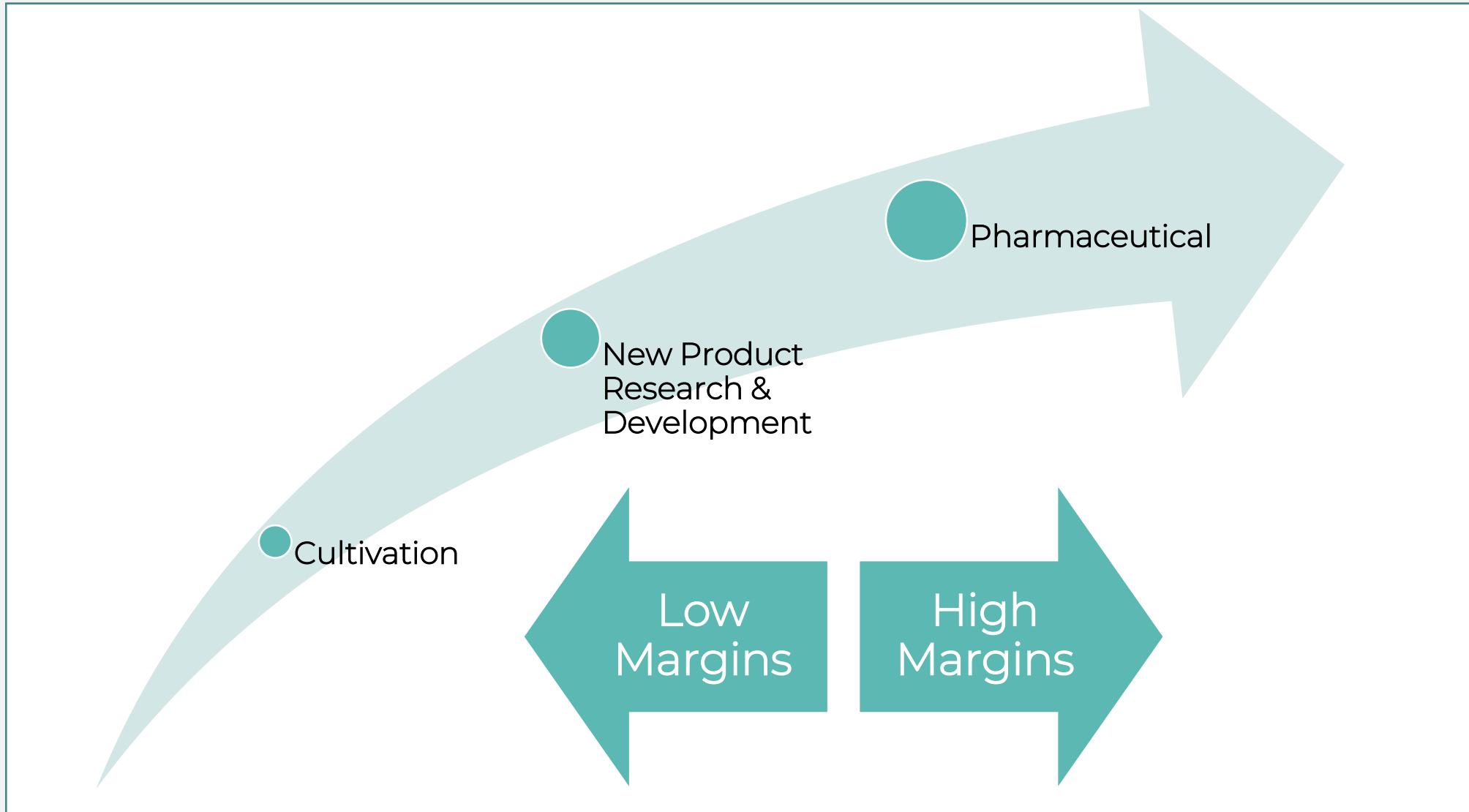
CANNABIS INDUSTRY

Increasing Revenue & Shrinking Margins

- Price of Cannabis peaked in 1989 and has been trending downwards ever since
- Average decline in price of 1.7% annually
- Similar trend seen in Colorado over last 4 years






EVOLUTION OF THE CANNABIS INDUSTRY



SOLUTIONS

CBDS Health and GrowBuddy have integrated their platforms for the provision of a complete data capture solution for Cannabis cultivation & product research.

Today Cultivation	Tomorrow Product Research	The Future Clinical Research
GrowBuddy is a full-feature IoT cannabis cultivation data capture platform	CBDS Health plus GrowBuddy is a full-feature IoT cannabis product research data capture platform	CBDS Health plus GrowBuddy is a full-feature IoT cannabis clinical trials data capture platform
		



CUSTOMER SOLUTIONS

Cultivation

CULTIVATION MANAGEMENT SOLUTION



- Collect data from growers, sensors, and existing systems
- Leverage the built-for-cannabis data input interface
- Digital twin of your business
- Allows for visualization of operations from seed to sale
- Consistent higher yields and massive reduction in crop failures
- GrowBuddy has +44,000 users and is collaborating with IBM-Canada.

GROWBUDDY - METRICS

Metrics:

- Top-tier cultivators realize a +25% increase in yields using GrowBuddy.
- An average 50% increase in yields across all levels of expertise.
- Customers blow past the 1 gram/watt "upper limit".
- Industry average Crop Failure Rate is >20% while users of the GrowBuddy platform experience a < 1% Crop Failure Rate

DeepRoots is an award-winning Nevada-based LP that has used GrowBuddy for several years and has experienced a yield increase to 1.3 grams/watt and experienced 94 consecutive successful grows – without a failure

The screenshot displays the GrowBuddy mobile application interface. At the top, there's a navigation bar with options: Manage Garden, Calendar, Marketplace, Case Files, and a user profile icon. The main screen is titled 'Iron Room' and features a sidebar on the left with a 'New Room' button and a list of rooms under 'VEGETATIVE': Zinc Room, Iron Room (selected), Gold Room, Cobalt Room, Bauxite Room, and Silver Room. The central area shows a list of tasks for different crops:

- Mar 12 - My First Crop: Move plants to second floor
- Mar 14 - My Second Crop: Lollipop the plants tagged
- Mar 21 - Pink Haze Crop: Replace lights
- Mar 22 - OG Kush Crop: Check on the status of plant A3489

Each task entry includes a date, crop name, and a description. To the right of the task list is a form to create a new task, with fields for Title, Description, Date, and Repeat, and a 'Create Task' button. On the far right, there's a 'Timeline' section showing upcoming tasks for different crops, such as 'Super Crop' (Replace the lights on the second floor) and 'Jamie's Crop' (Check Plant A942).

GROWBUDDY – IN THE GROW

DeepRoots is an award-winning Nevada-based LP that has used GrowBuddy for several years and has experienced a yield increase to 1.3 grams/watt and experienced 94 consecutive successful grows – without a failure

“Since using GrowBuddy, our cultivation outputs have increased across clients. It allows us to refine nutrient schedules while testing new growth methods in different environments. Using this data we are able to see what actually works and apply those principles to produce larger and healthier plants.”

Cultivation Consultant with Stomatic

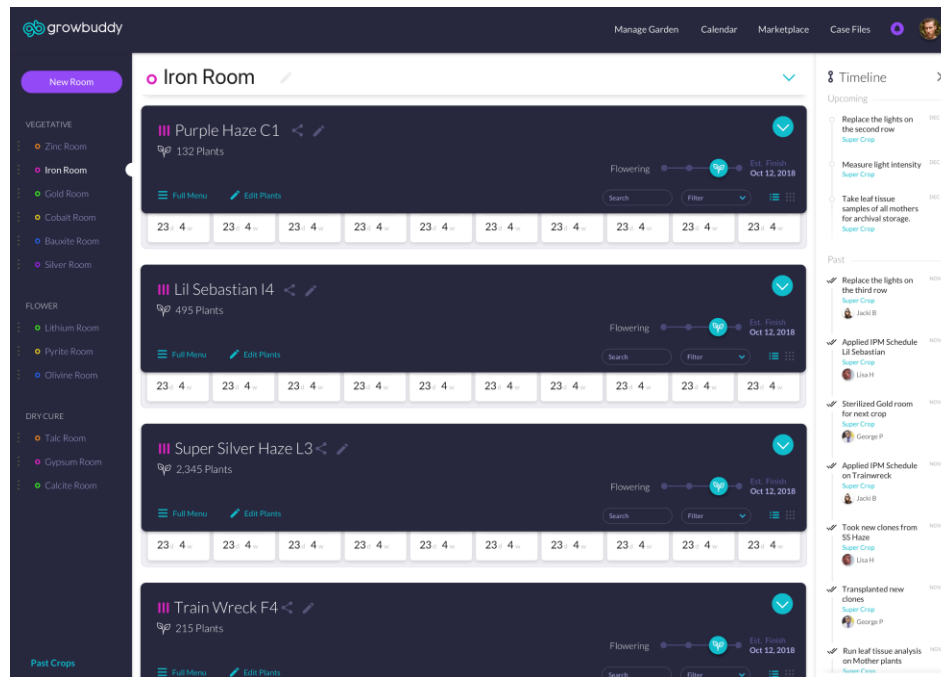


“This software has helped me replicate my crops so that each harvest is predictable and repeatable with very little deviation.”

Cultivation Manager at Deep Roots Harvest

GROWBUDDY - VERSION 2.0

- Completely redesigned interface custom tailored to the commercial cultivator
- Dashboards for every member of your organization, from day-to-day cultivation to operations and finance
- Hardware integration and IoT Hub -- Automatically capture sensor data while adding smart controls for environment and irrigation equipment
- Smart Tasks -- custom workflows and grow methods which can be applied crop by crop or room by room. Cultivate, harvest, repeat
- Improved Multi-User Management: Assign tasks and track employee progress to determine points of strength or areas for improvement



GROWBUDDY - GROWTOWER

Base Capabilities

- Temperature Sensor
- Humidity Sensor
- Zigbee 3.0 - Mesh Network Capabilities
- Bluetooth BLE 5.0
- Battery Powered - 3-12 months depending on modules
- Ultra Low-Powered Microcontroller and Power Management
- 8GB Storage for data storage
- USB-C Connection for Charging and wired data transfer
- 2 extendable poles for various height settings
- Multiple mounting options

Additional Modular Capabilities - stackable, quick connect allows for unlimited configuration options

- Airflow Sensor
- CO2 Sensor
- Light Spectrum Meter (Spectrometer)
- Soil Sensor (Temp and Moisture)
- Barometer Sensor
- Motion sensor
- CCD Camera with 360-degree movement
- Voice Control
- E-Ink Display



GROWBUDDY – VALUE INCREASE

GrowBuddy Value Annual Plant Capacity Formula	
Square feet for 5 plants	50
Plants per 50 feet	5
Industry average plant yield (grams)	100
Average grows per year	3
Annualized grams per plant year	300
Less: loss per year at 10%	30
Net annualized grams per plant year	270
Assigned net value per gram	\$2.00
Annualized total value per plant year	\$540
GB minimum yield increase	20%
GB minimum crop loss correction	50%
GB increased value based on yield	\$75.60
Percent	28%

Projected Increase in Operating Margins

Commercial Size Up to X Square Feet	Commercial Capacity Number of Plants	Operating Margin Increase GB Projected Annual
10000	1000	\$75,600
50000	5000	\$378,000
100000	10000	\$756,000
500000	50000	\$3,780,000
1000000	100000	\$7,560,000

Note: historical crop failure rate is 10-20% and GB users experience up to 100% grow consistency and historical industry yield is 0.5 grams per watt and GB user yields increase on average 50% and range from 20-160%

GROWBUDDY – LICENSE FEE

Single Location
Unlimited Users
Unlimited Plants

Commercial Size Up to X Square Feet	Commercial Capacity Number of Plants (Est. – Not Limited)	Monthly Cost	Monthly Cost (Per Plant)	Annual Cost
10,000	1,000	\$400.00	\$ 0.40	\$4,800
25,000	2,500	\$950.00	\$0.38	\$11,400
50,000	5,000	\$1,750.00	\$0.35	\$21,000
100,000	10,000	\$3,000.00	\$0.30	\$36,000
500,000	50,000	\$10,000.00	\$0.20	\$120,000
1,000,000	100,000	\$15,000.00	\$0.15	\$180,000

Plus one-time integration setup fee of 20% of the Annual Cost

GROWBUDDY – IOT HARDWARE PRICING

Commercial Size Up to X Square Feet	GrowHub (Count)	GrowHub Cost One Time Cost	GrowTower (Count) One tower per 25²ft zone	GrowTower Cost Core and Humidity/Temp	Hardware Cost (Total)	Monthly Service Fee
10,000+	2	\$1,000	16	\$1,600	\$2,600	\$200
25,000+	3	\$1,500	40	\$4,000	\$5,500	\$425
50,000+	4	\$2,000	80	\$8,000	\$10,000	\$875
100,000+	5	\$2,500	160	\$16,000	\$18,500	\$1,500
500,000+	6	\$3,000	800	\$80,000	\$83,000	\$5,000
1,000,000+	8	\$4,000	1600	\$160,000	\$164,000	\$7,500

- Monthly Hardware Service Fee is inclusive of support
- One time setup fee is 20% of the combined first year annual fee and hardware purchase costs
- Additional GrowTower modules are priced per module and can be added in series for an average of \$50



CUSTOMER SOLUTIONS

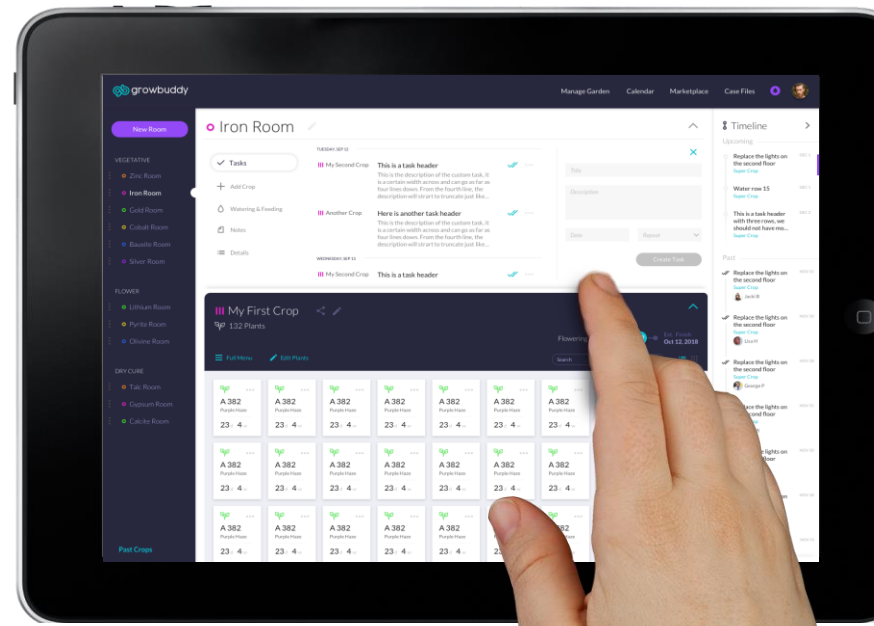
Research

RESEARCH - STARTS IN THE GROW



Cannabis research & clinical trials must track from seed and strain lineage through to finished product.

Performing research & clinical trials for cannabis requires definitive tracking of not just the trial itself but also the cultivation and acquisition of the targeted cannabis products. Repeatability is key - being able to produce cannabis products the same way, every time to ensure the integrity of the research/trial.

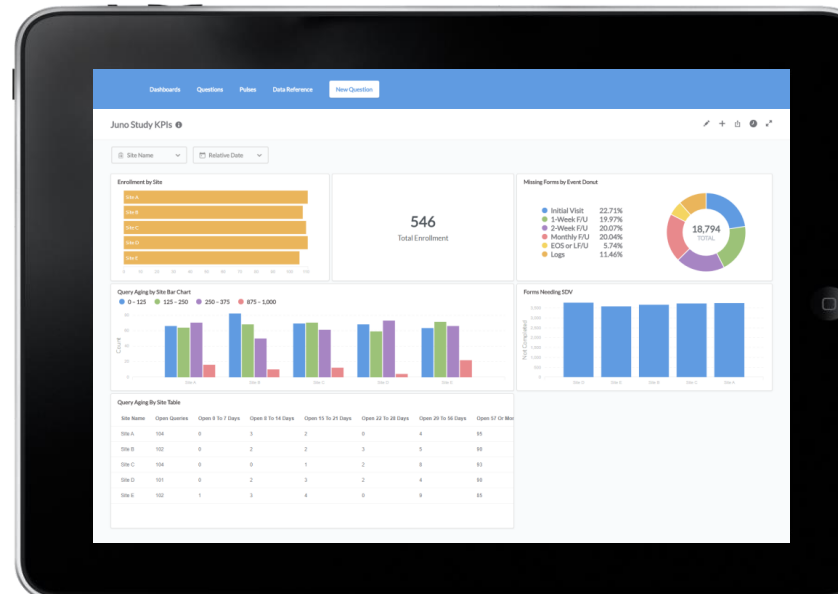


RESEARCH – USER DATA CAPTURE



CBDS Data Capture “Cannabis Sleep/Pain Lab” Configuration

- Track usage and user behavior
- Monitor health metrics
- Monitor quality of life benefits



IOT HUB & PLATFORM

The CBDS Health platform has been 15 years in the making. The original networked technology was developed under the OrcaTech initiative at the Oregon Health Science University. OrcaTech have completed 60+ research studies with over 1,000 individuals and captured more than one million hours of continuous patient monitoring data resulting in 130+ peer reviewed publications.

Leveraging years of IoT experience, CBDS Health has taken the original platform to the cloud and added its new core Hub and devices/services which expand the capabilities and bring intelligence to the edge of the IoT. Some of the major collaborators with the OrcaTech program at OHSU include:



RESEARCH - VAPORIZER

Vaporizer with Bluetooth 4.0 compatibility in combination with monitoring software and biometric scanning security.

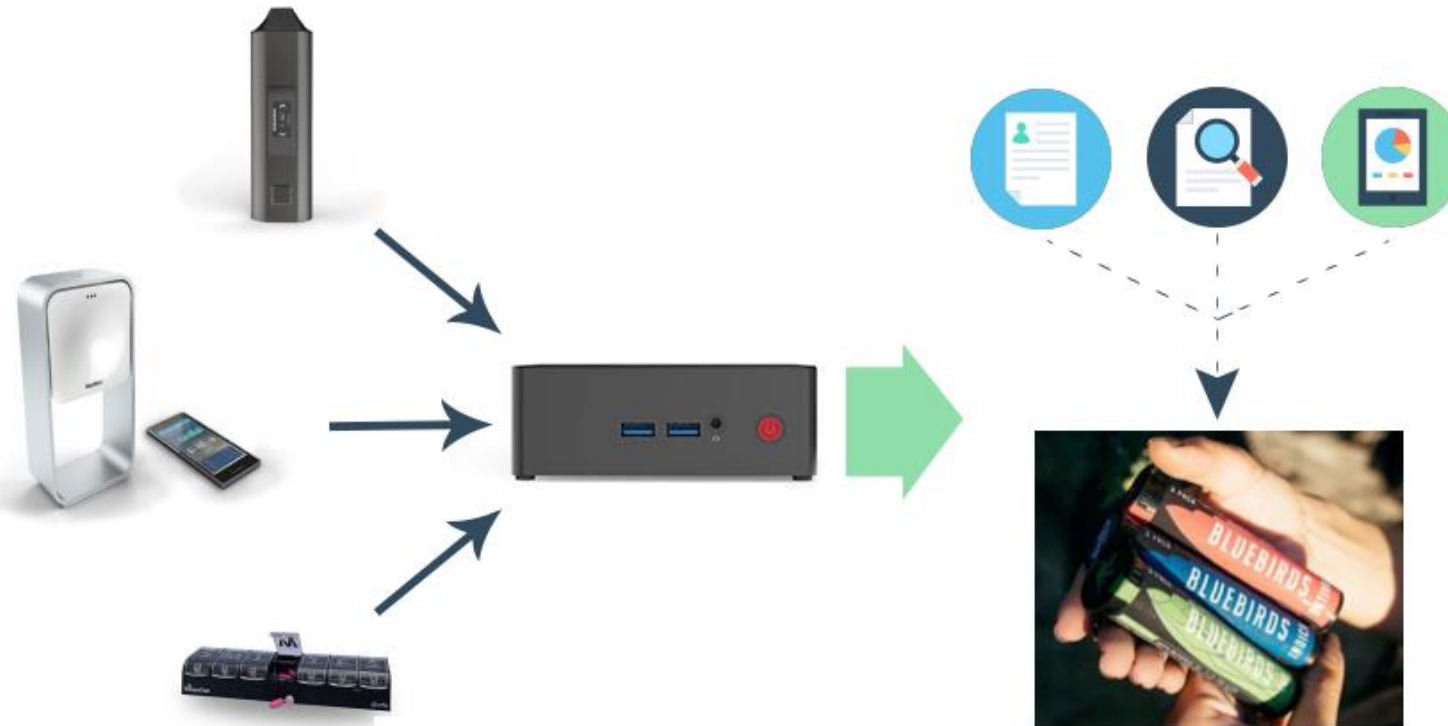
Individual controlled treatment w maximum safety for the user.

- Track & Measure progress
- Safety for the patient
- Safety for the doctor
- Monitoring software
- Fingerprint system
- Certified CE



SLEEP STUDY

Research Studies using Real World Metrics



SLEEP STUDY NUMBERS

Sleep Study for: 20		Sleep Study for: 50		Sleep Study for: 100	
Initial Setup Cost (per study participant)		Initial Setup Cost (per study participant)		Initial Setup Cost (per study participant)	
Hub	\$ 325.00	Hub	\$ 325.00	Hub	\$ 325.00
Sleep Sensor	\$ 125.00	Sleep Sensor	\$ 125.00	Sleep Sensor	\$ 125.00
Pill Box	\$ 100.00	Pill Box	\$ 100.00	Pill Box	\$ 100.00
Vape Pen	\$ 325.00	Vape Pen	\$ 325.00	Vape Pen	\$ 325.00
Total per Participant	\$ 875.00	Total per Participant	\$ 875.00	Total per Participant	\$ 875.00
Annual Total	\$ 17,500.00	Annual Total	\$ 43,750.00	Annual Total	\$ 87,500.00
Monthly Service Fees		Monthly Service Fees		Monthly Service Fees	
Base CBDS Service Fee	\$ 1,000.00	Base CBDS Service Fee	\$ 1,000.00	Base CBDS Service Fee	\$ 1,000.00
Study Participant Fee	\$ 1,000.00	Study Participant Fee	\$ 2,500.00	Study Participant Fee	\$ 5,000.00
Vape Capsules	\$ 800.00	Vape Capsules	\$ 2,000.00	Vape Capsules	\$ 4,000.00
Monthly Total	\$ 2,800.00	Monthly Total	\$ 5,500.00	Monthly Total	\$ 10,000.00
Total Cost (12 months)		Total Cost (12 months)		Total Cost (12 months)	
Initial Setup	\$ 17,500.00	Initial Setup	\$ 43,750.00	Initial Setup	\$ 87,500.00
Monthly Service	\$ 33,600.00	Monthly Service	\$ 66,000.00	Monthly Service	\$ 120,000.00
Annual Total	\$ 51,100.00	Annual Total	\$ 109,750.00	Annual Total	\$ 207,500.00



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THANK YOU

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