

# MANUAL



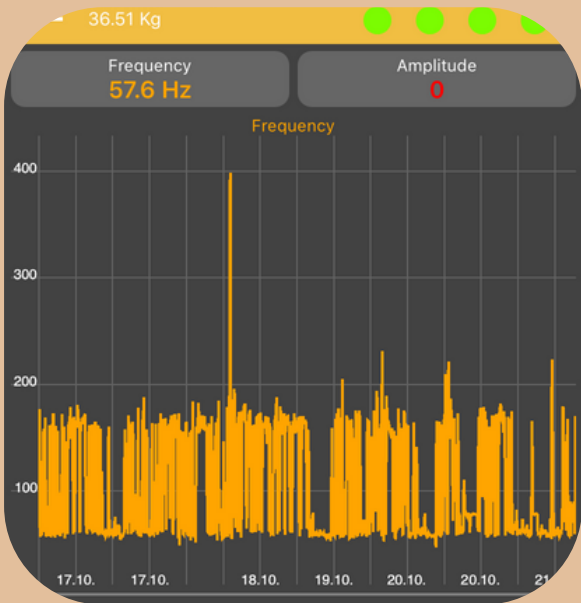
# CONTENT

- Hive heart 3.0.....3**
  - position.....4
  - battery.....5
  - treating.....6
  - applications.....7
  - graphs.....8
  - frequency bar.....9
- Hive scale 3W.....10**
  - battery.....11
  - weight.....12
  - applications.....13
  - graphs.....14
- Hive scale 3M.....15**
  - battery.....16
  - weight.....17
  - applications.....18
  - graphs.....19
- Hive scale 3S.....20**
  - battery.....21
  - weight.....22
  - applications.....23
  - graphs.....24
- Hive scale XS.....25**
  - battery.....26
  - weight.....27
  - applications.....28
  - graphs.....29
- GSM Gateway.....30**
  - 100 hives.....31
  - screwing.....32
  - battery.....33
  - SIM card.....34
  - APN setting.....36
- Graphs.....37**

# CONTENT

**Application Bee hive monitoring gateway.....41**  
**Application Bee hive monitoring .....42**  
**documentation and status report in the**  
**application.....44**  
- weight.....45  
- frequency.....46  
- status.....47  
- battery / signal.....48  
**Web application.....49**

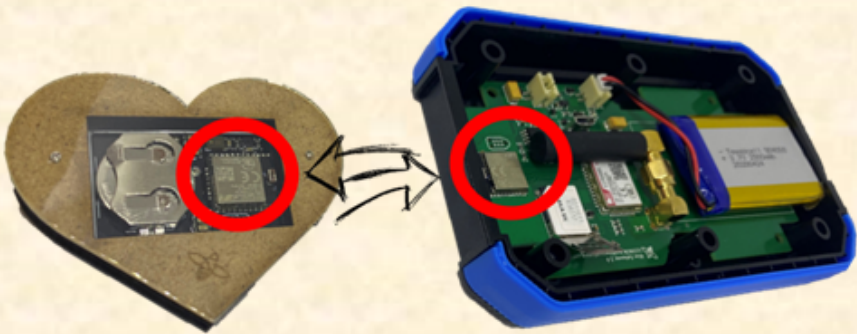
# HIVE HEART 3.0



# HIVE HEART 3.0

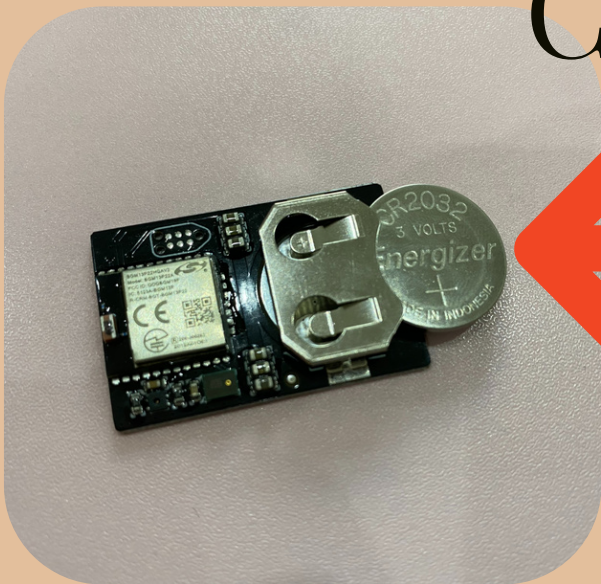


Best product position



# HIVE HEART 3.0

CR2032



365 days

# HIVE HEART 3.0



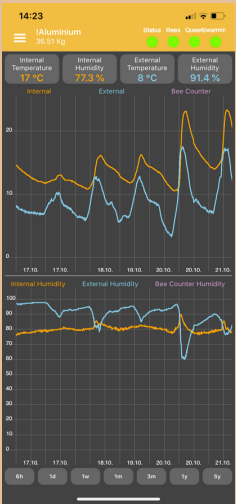
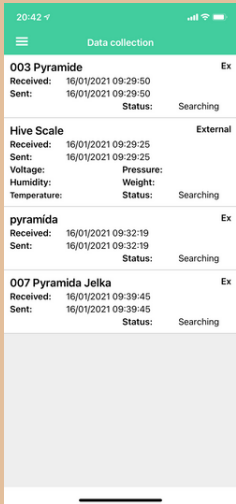
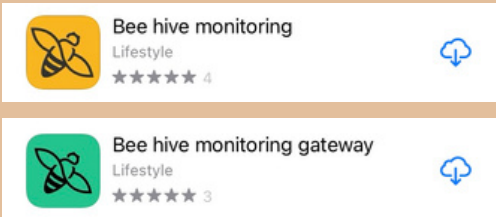
# HIVE HEART 3.0



Google Play



App Store



## B)



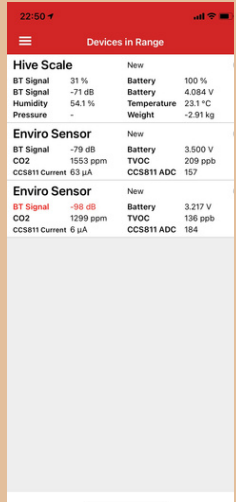
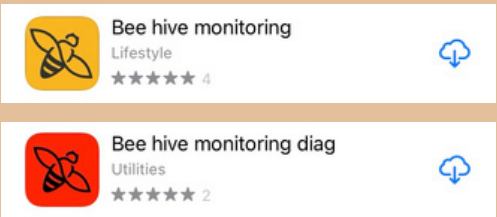
GSM Gateway

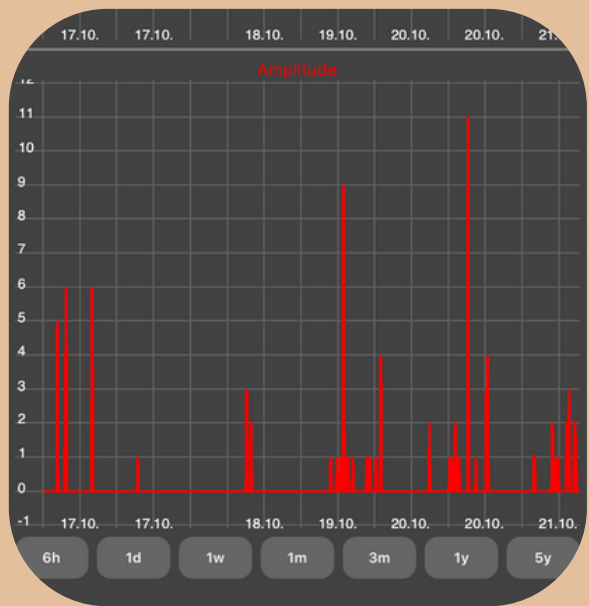
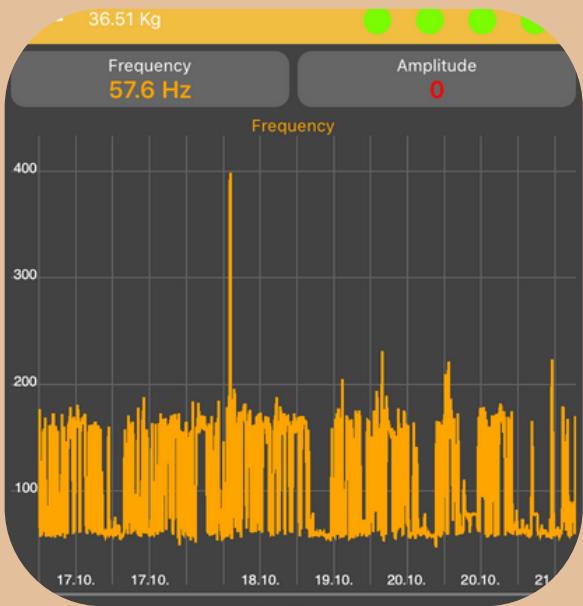
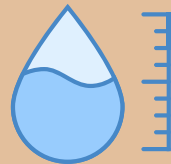
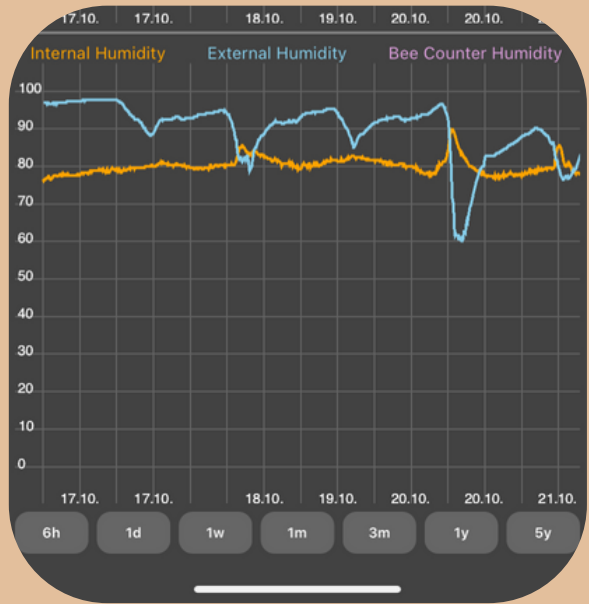
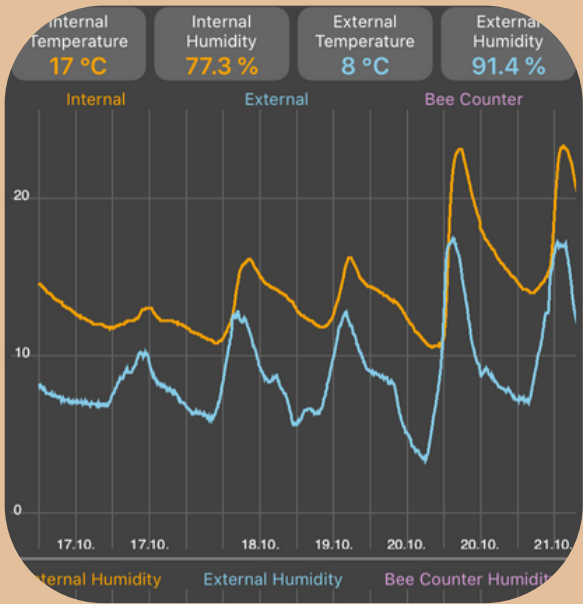


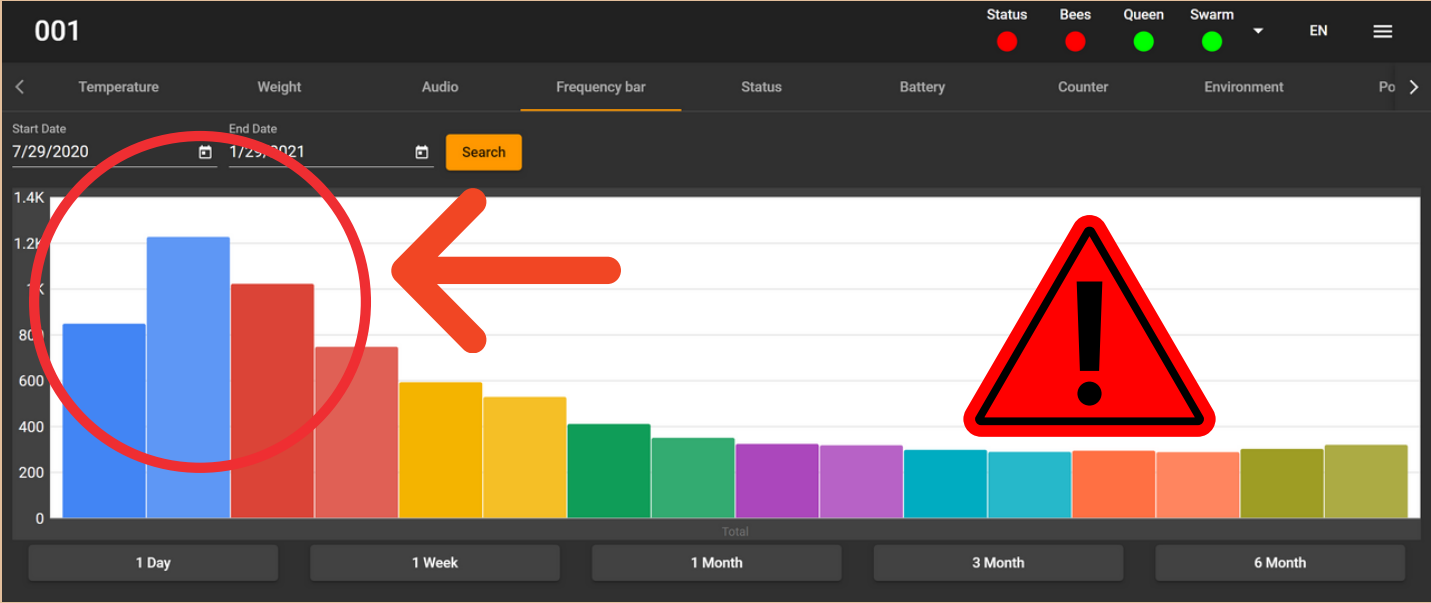
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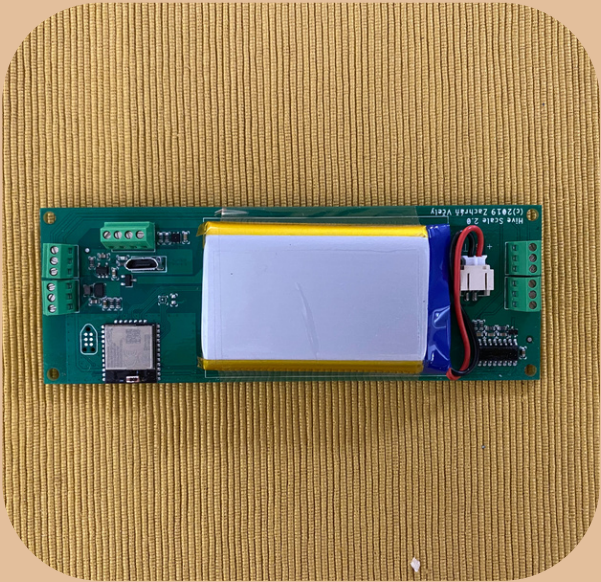
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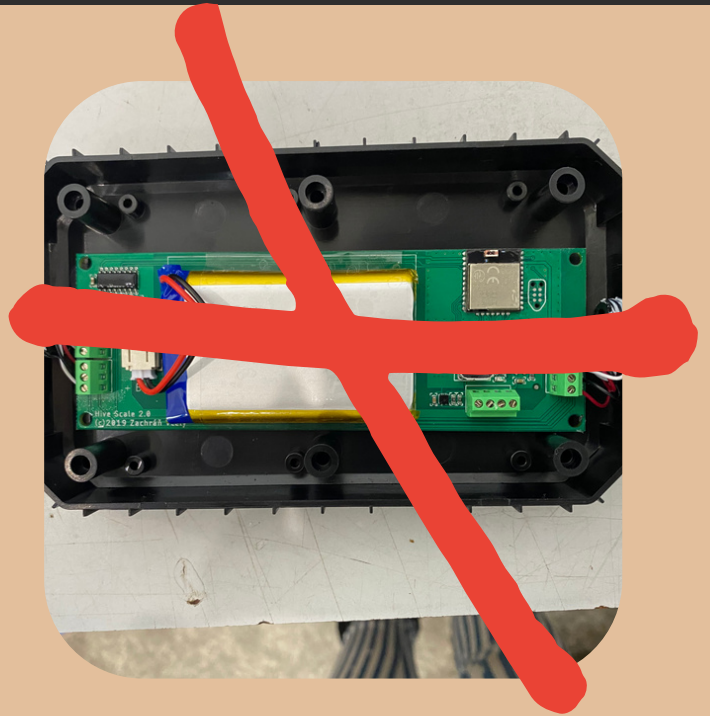




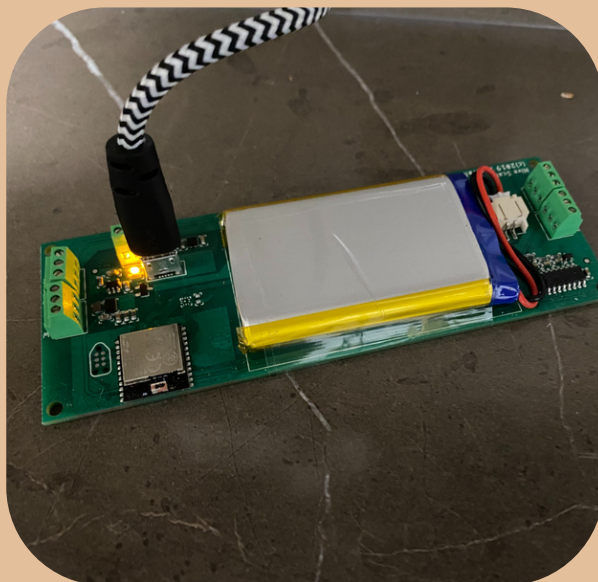
# 3W



3W



YEARS



3W

+/- 0.5kg



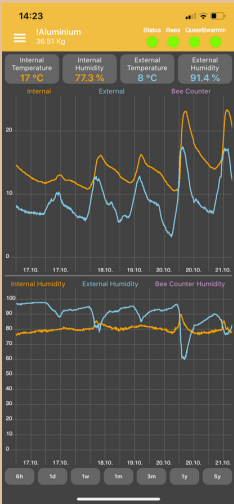
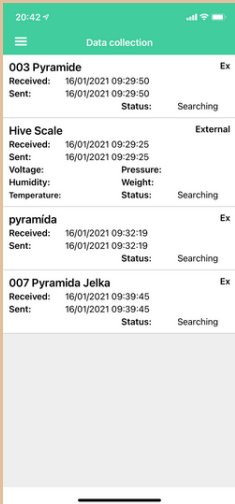
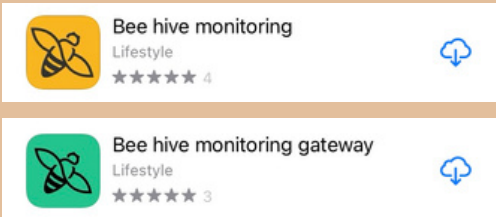
3W



Google Play



App Store



B)



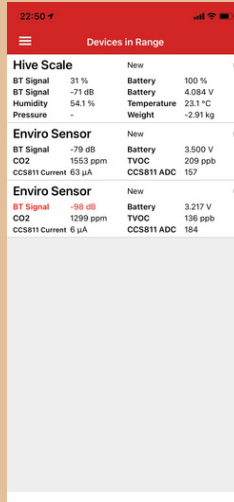
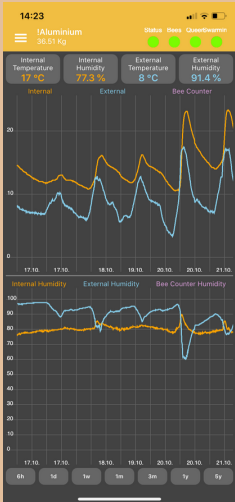
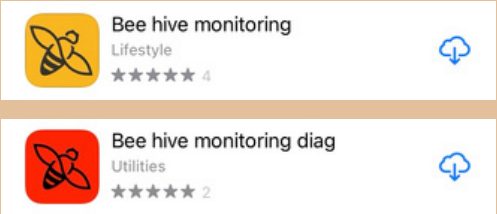
GSM Gateway

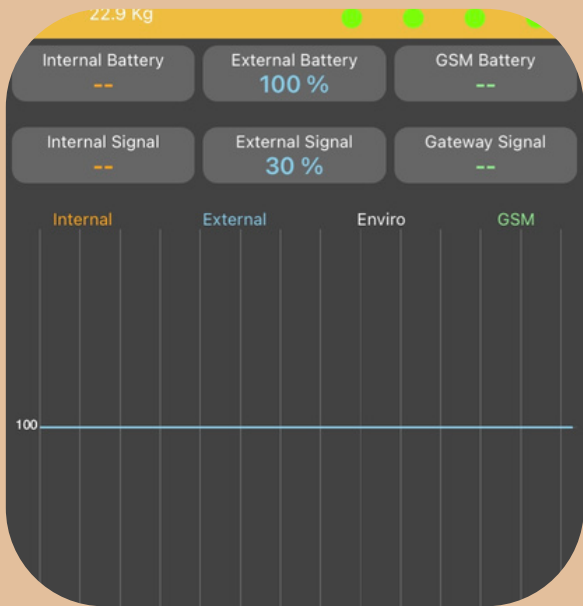
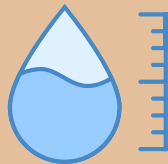
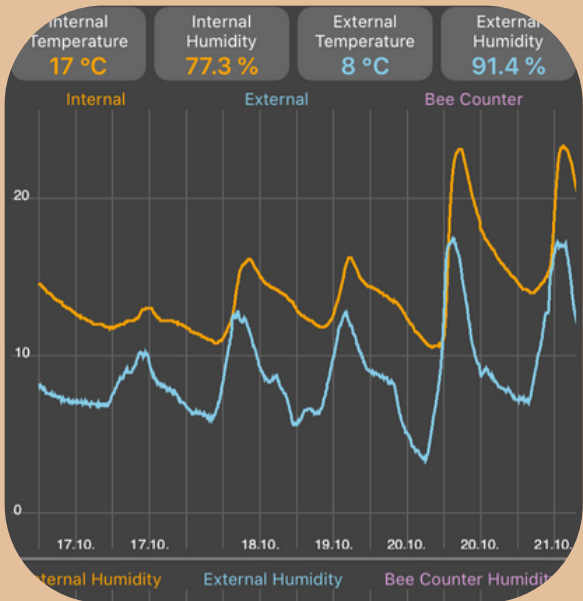


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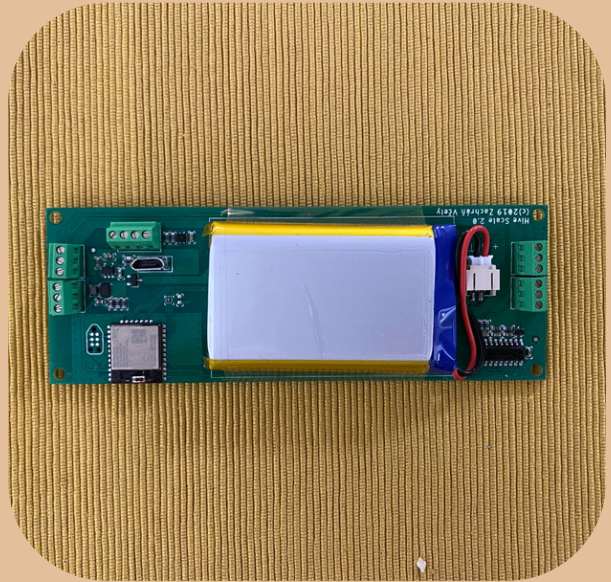


App Store

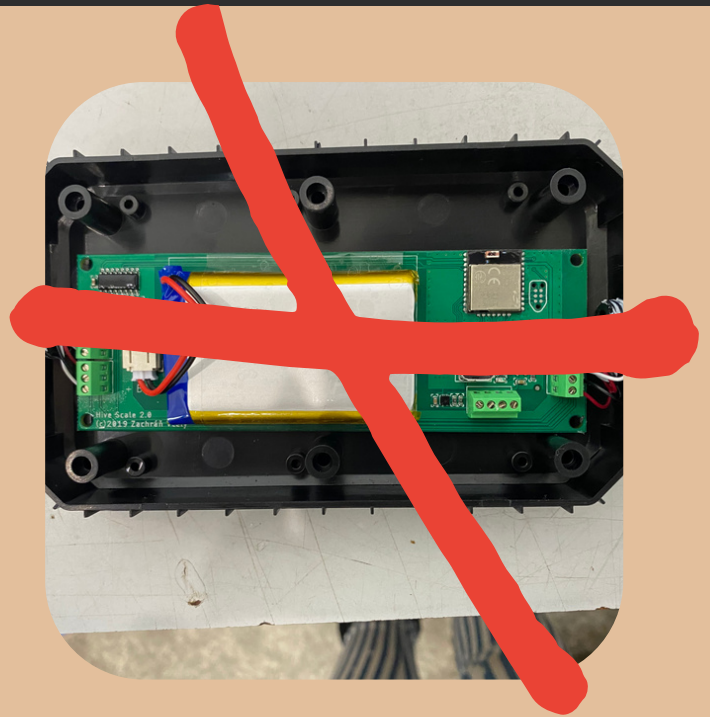




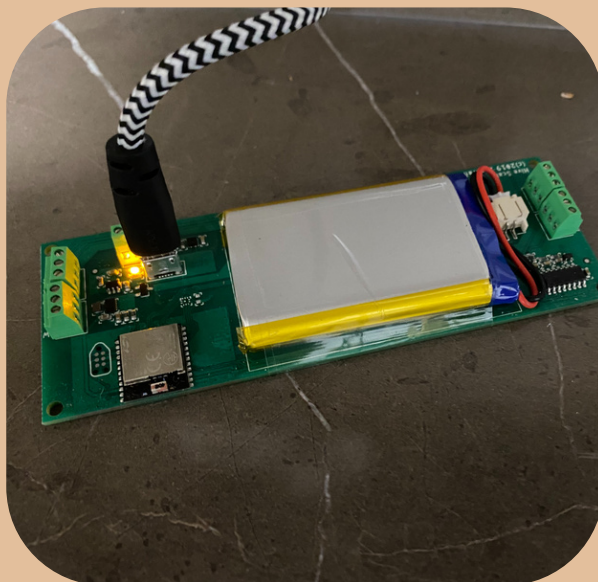
# 3M



3M



YEARS



3M

+/- 0.25kg



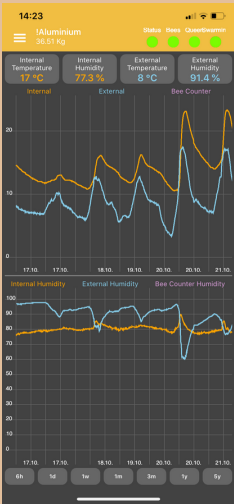
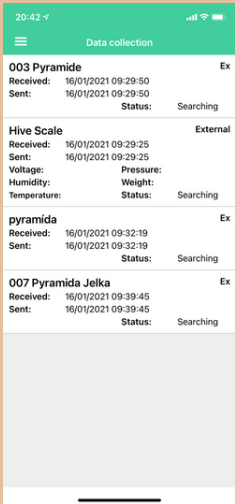
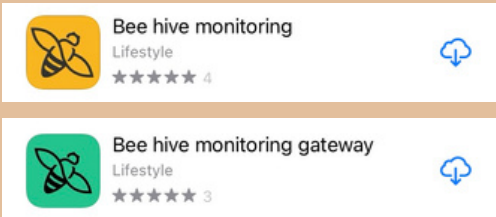
3M



Google Play



App Store



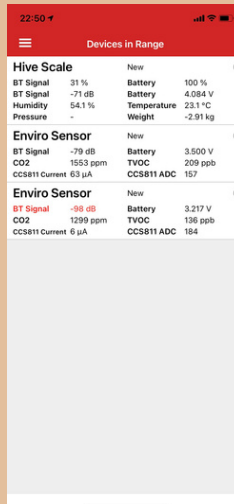
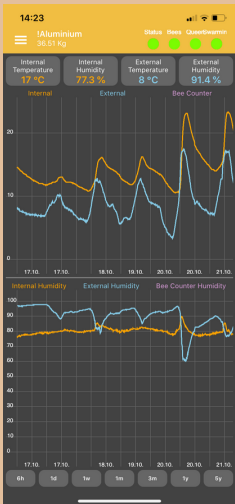
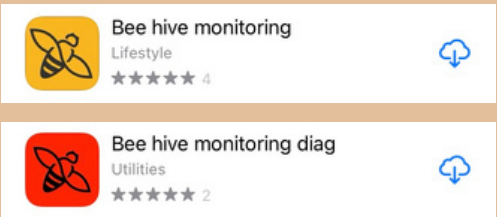
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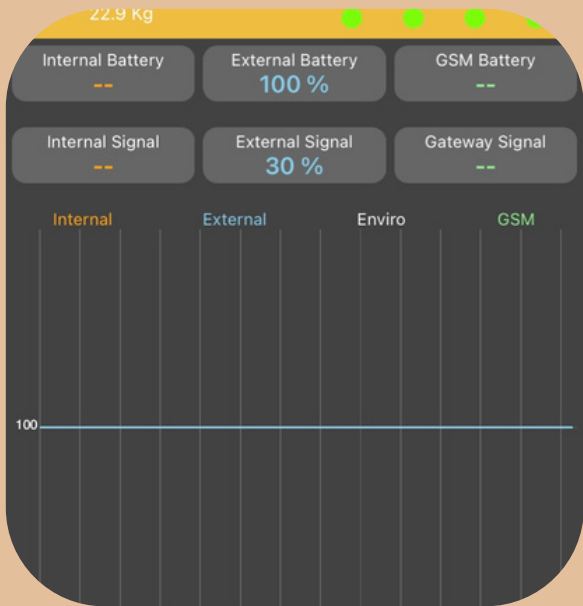
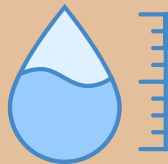
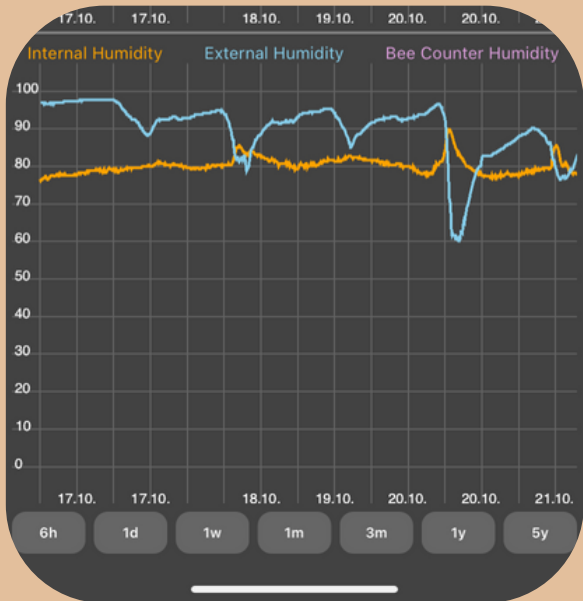
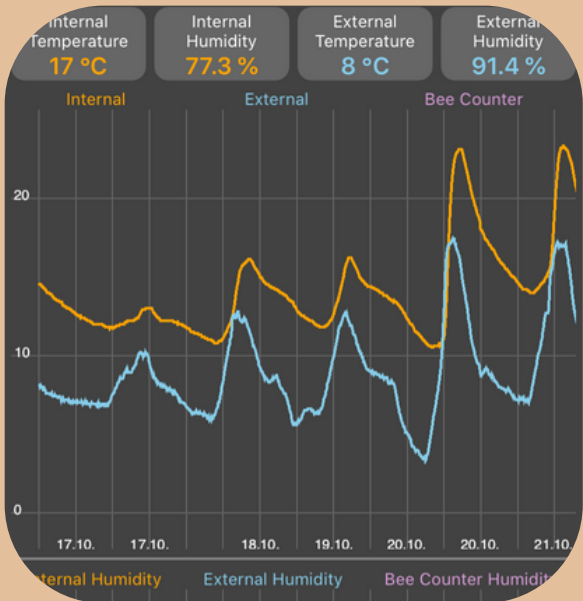


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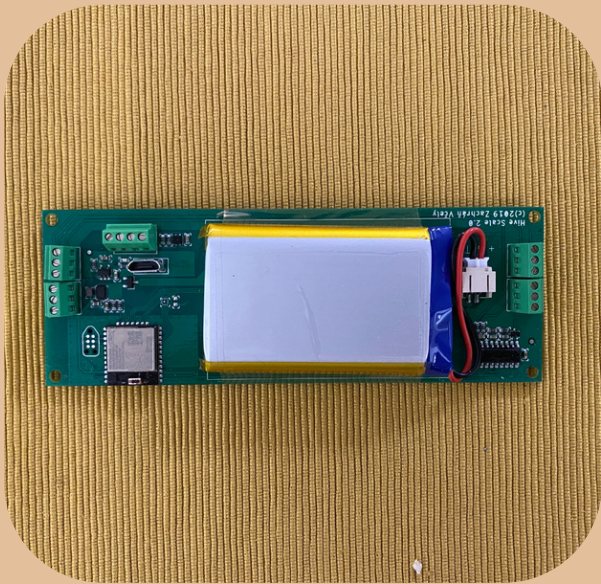


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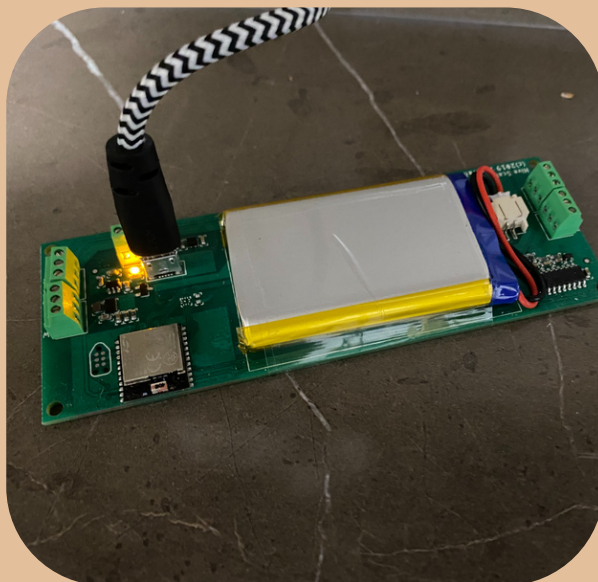
# 3S



3S



YEARS



3S

+/- 0.01kg



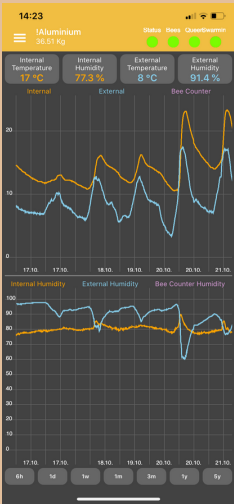
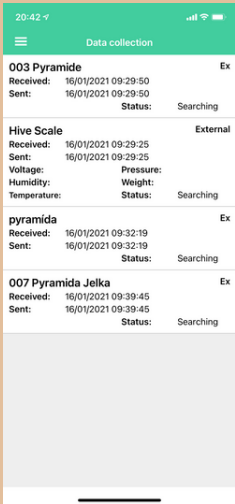
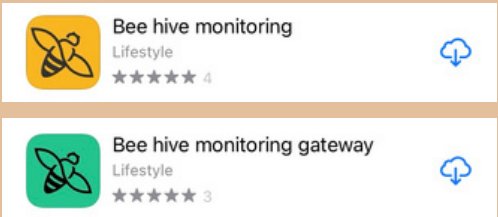
3S



Google Play



App Store



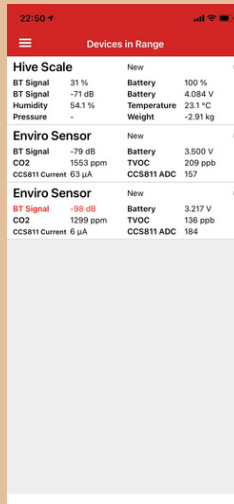
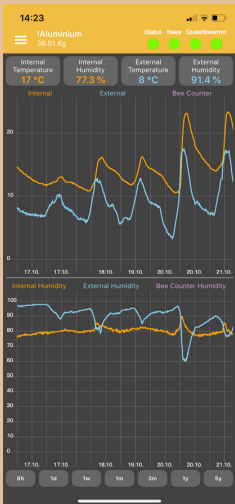
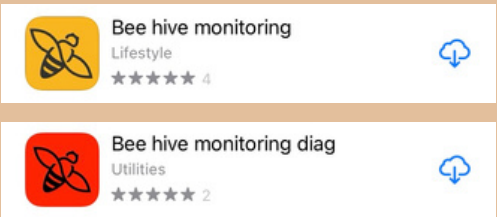
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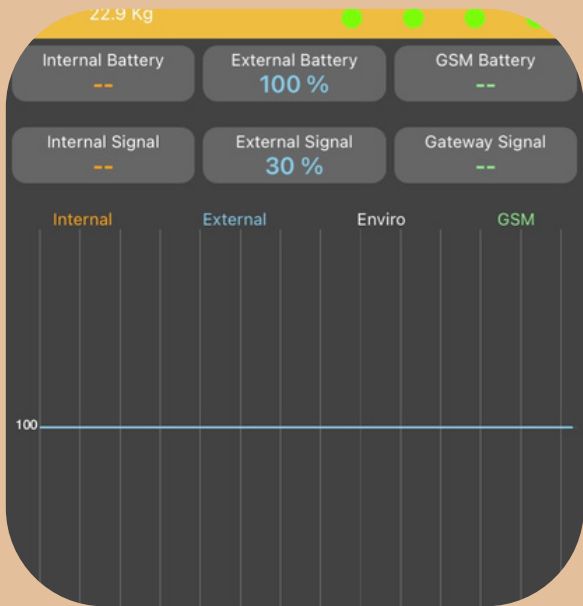
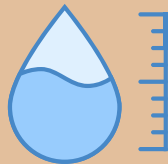
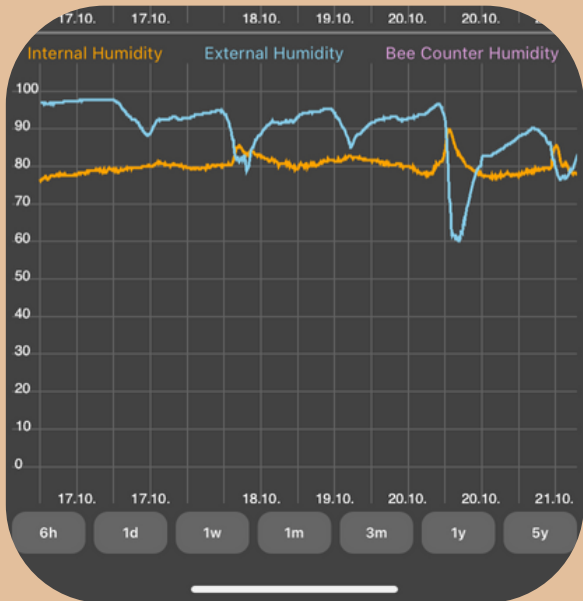
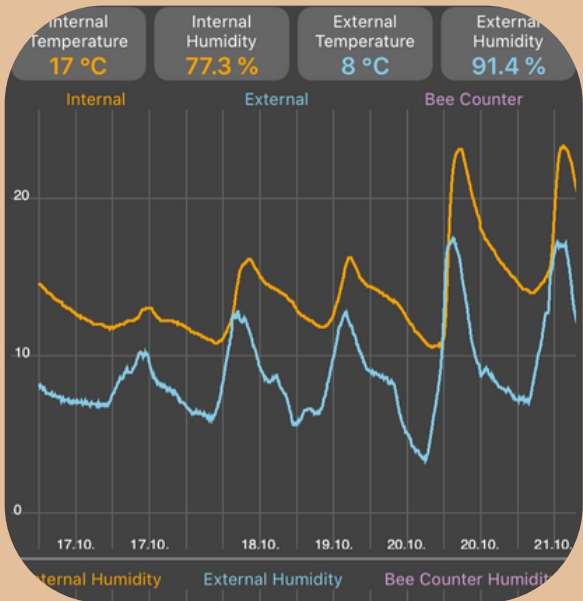


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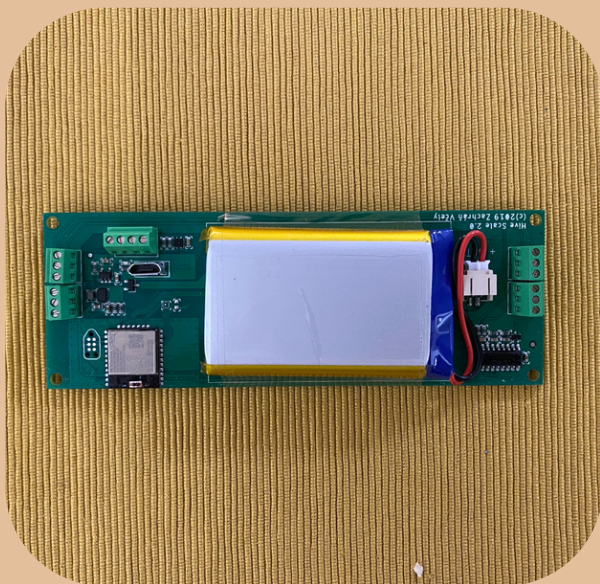


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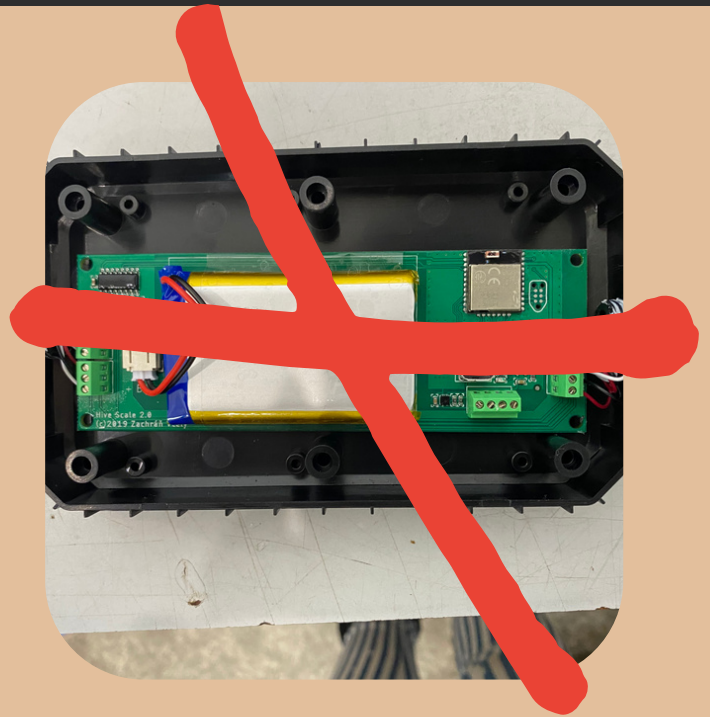




# XS



XS



YEARS



XS

+/- 0.01kg

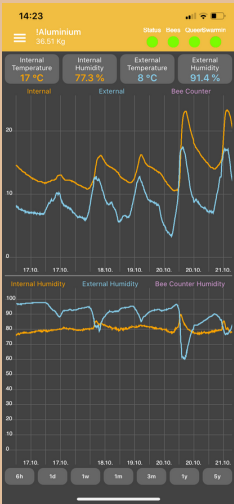
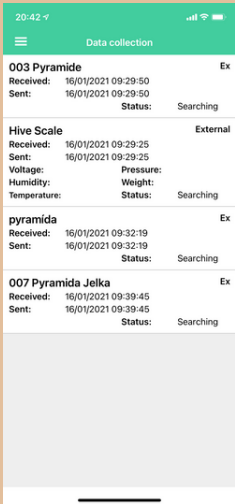
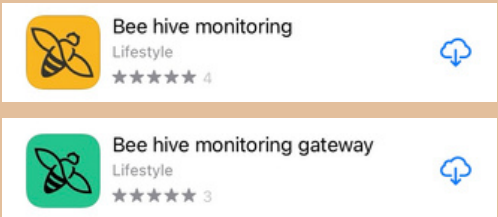




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App Store



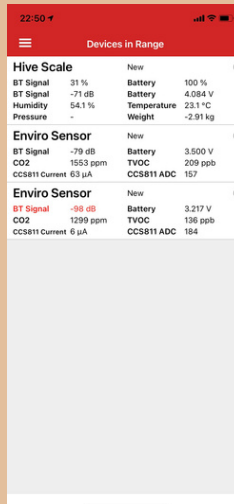
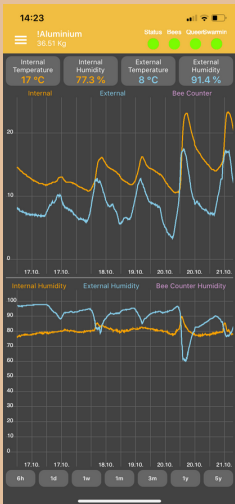
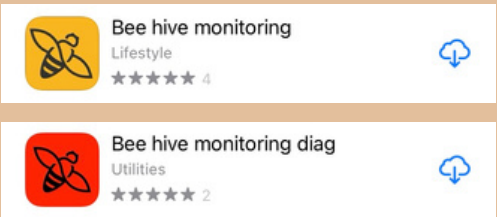
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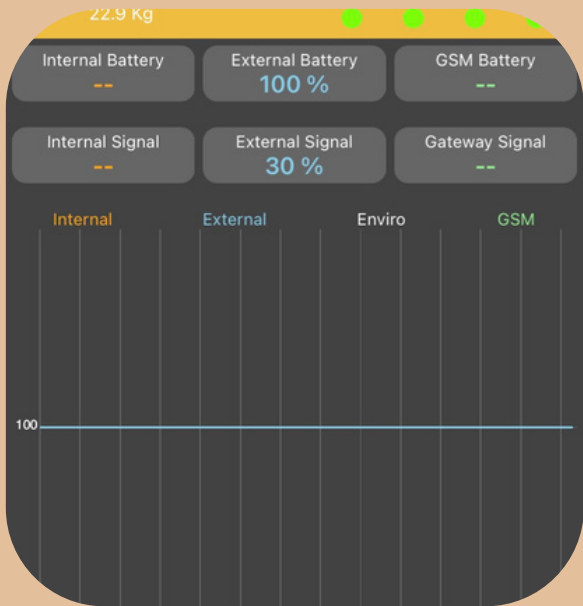
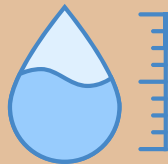
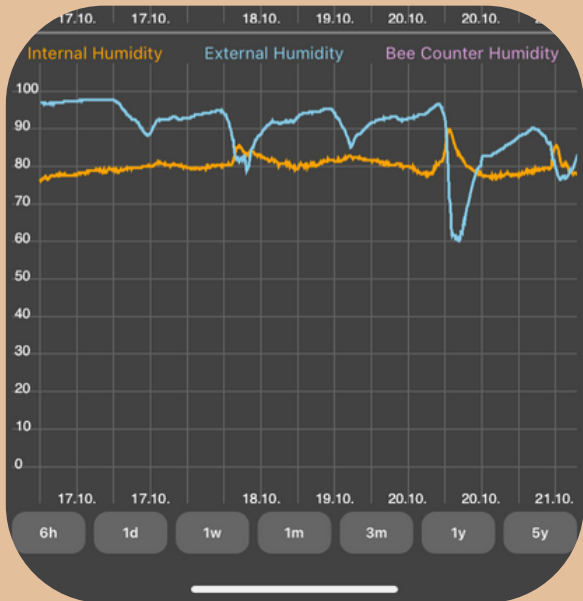
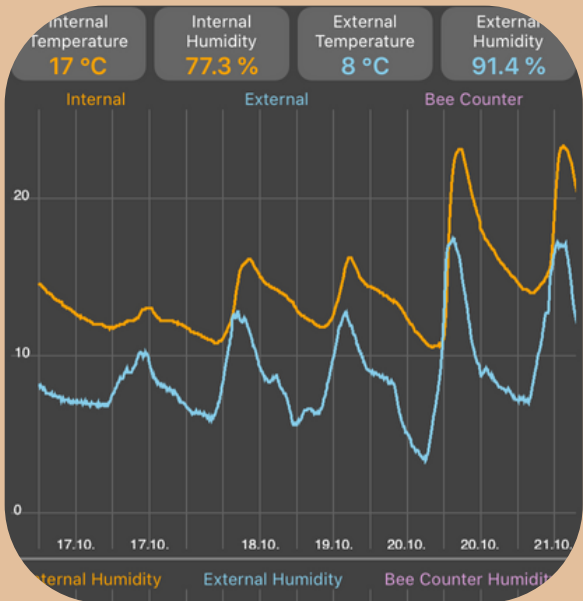


Google Play



App Store





# GSM GATEWAY



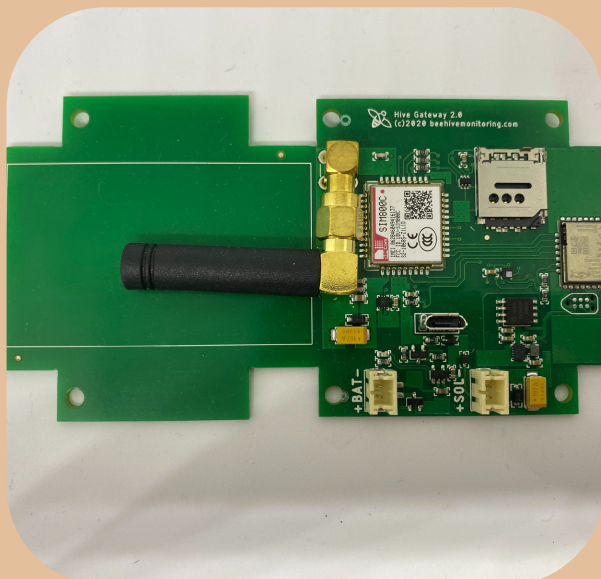
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☐ 4G



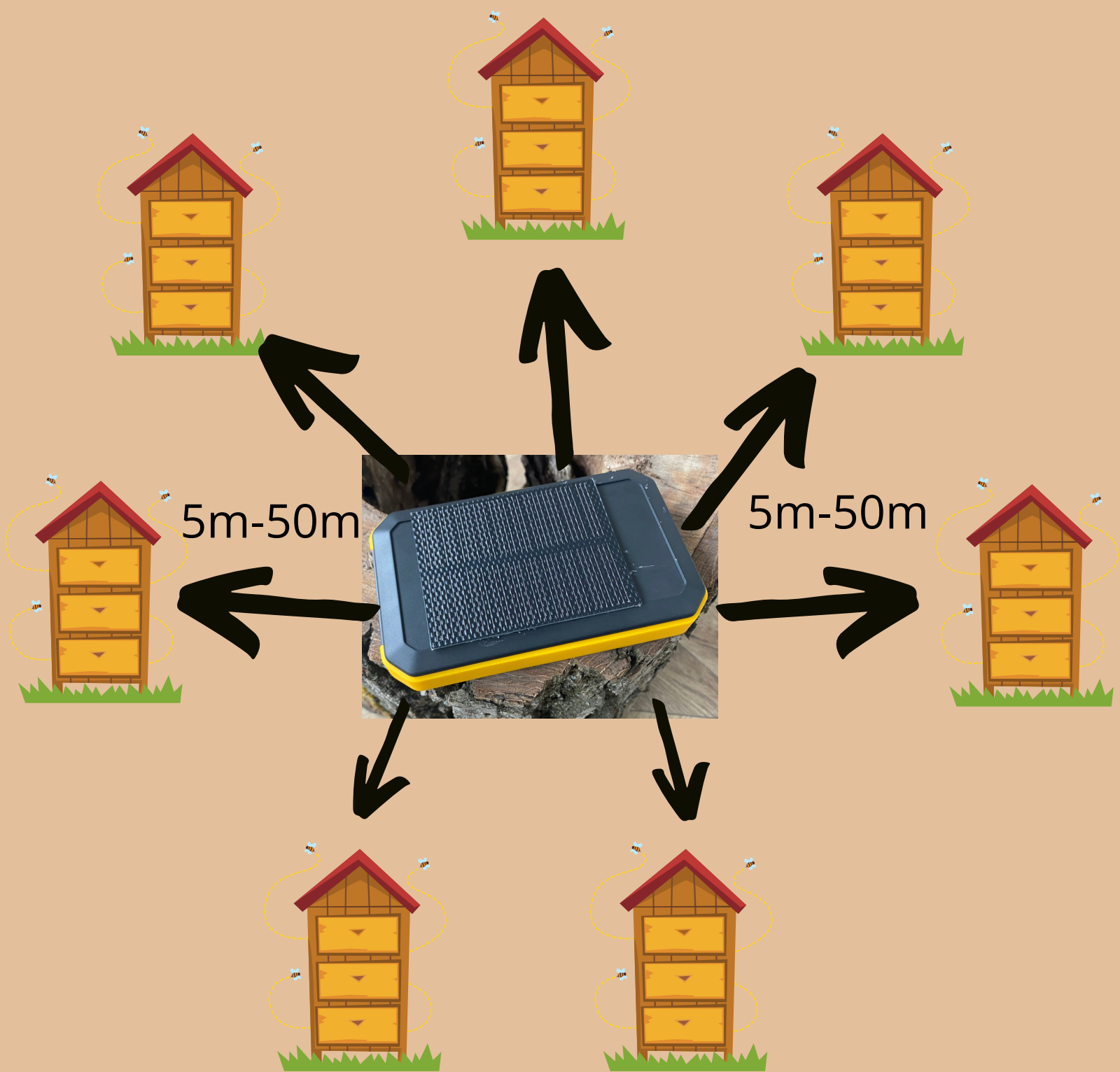
☐ 2G solar

☐ 4G solar

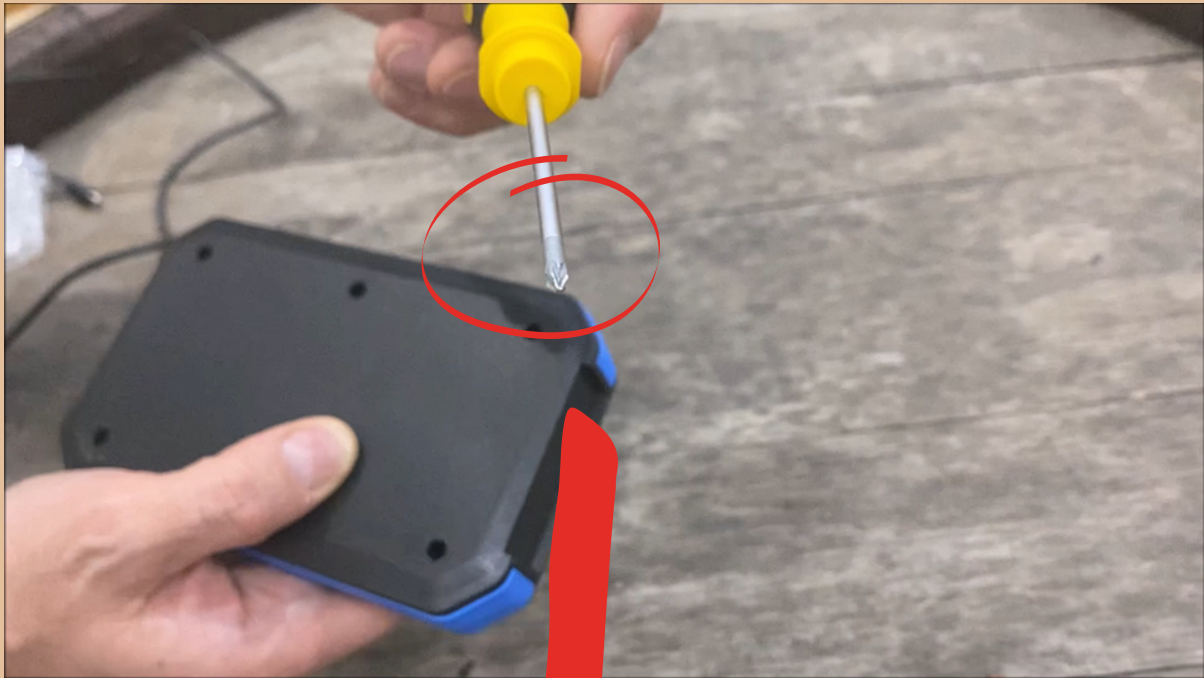


# GSM GATEWAY

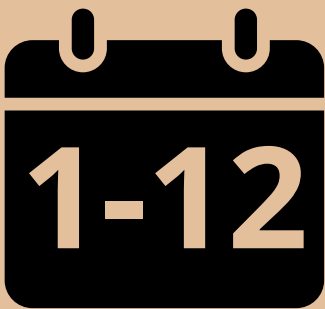
100X 



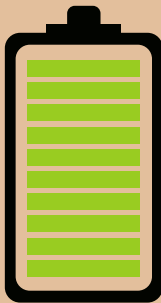
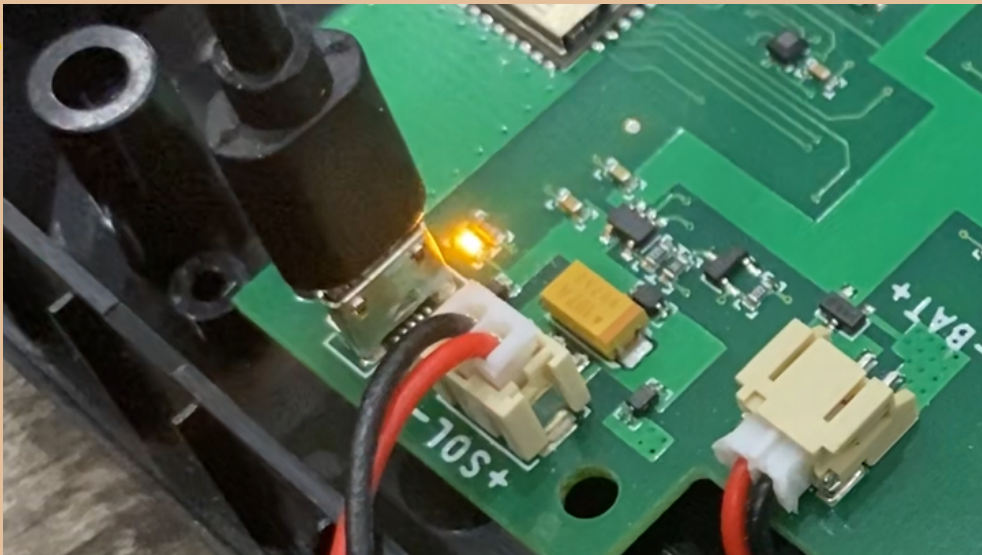
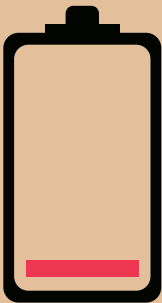
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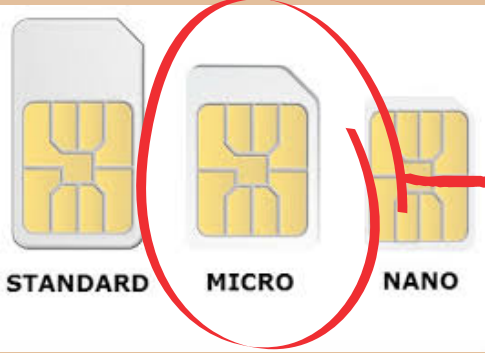
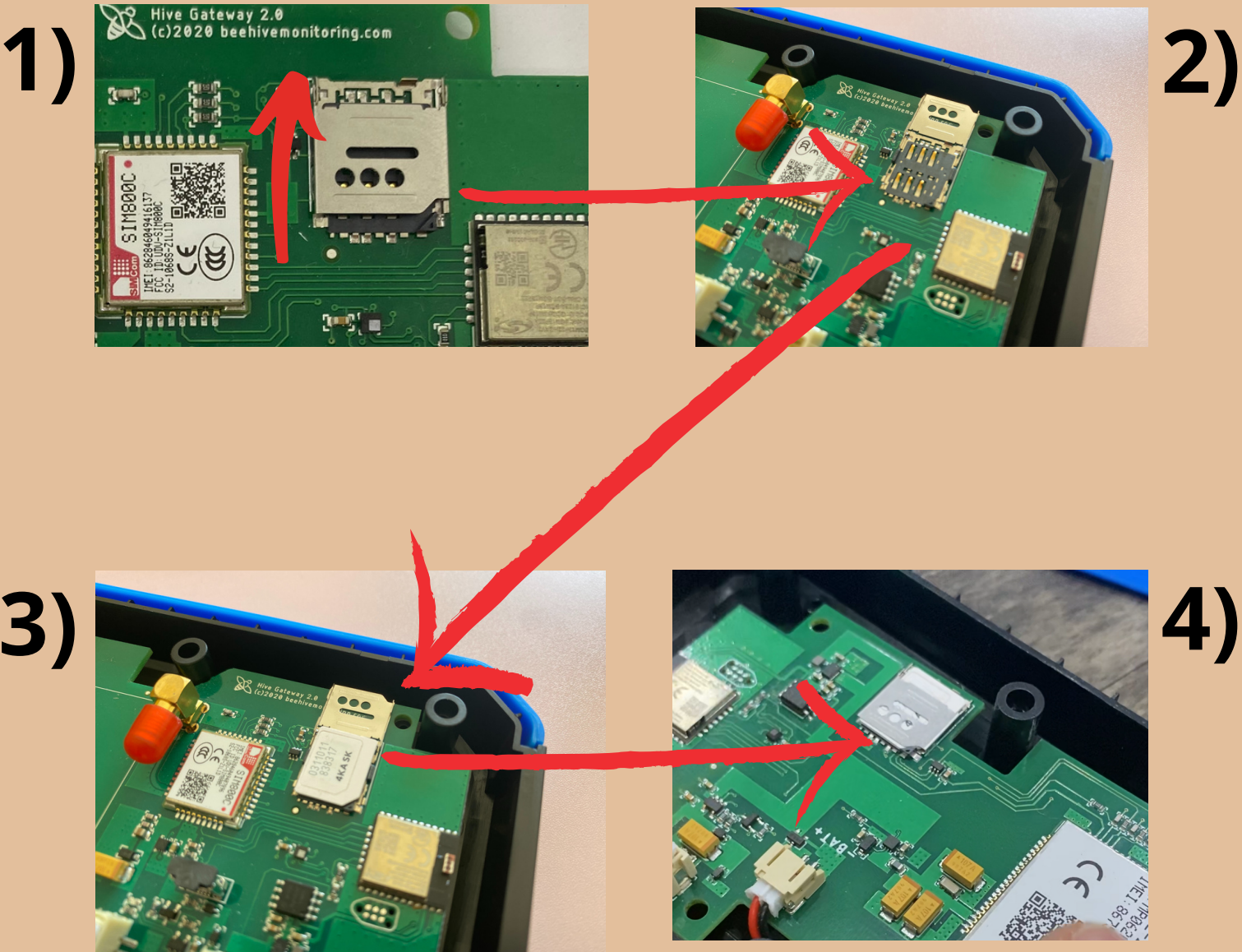
# GSM GATEWAY



MONTHS



# SIM



20MB/month

# BEE HIVE MONITORING SIM

1)



2)



3)



3 sec

4)



60 min 

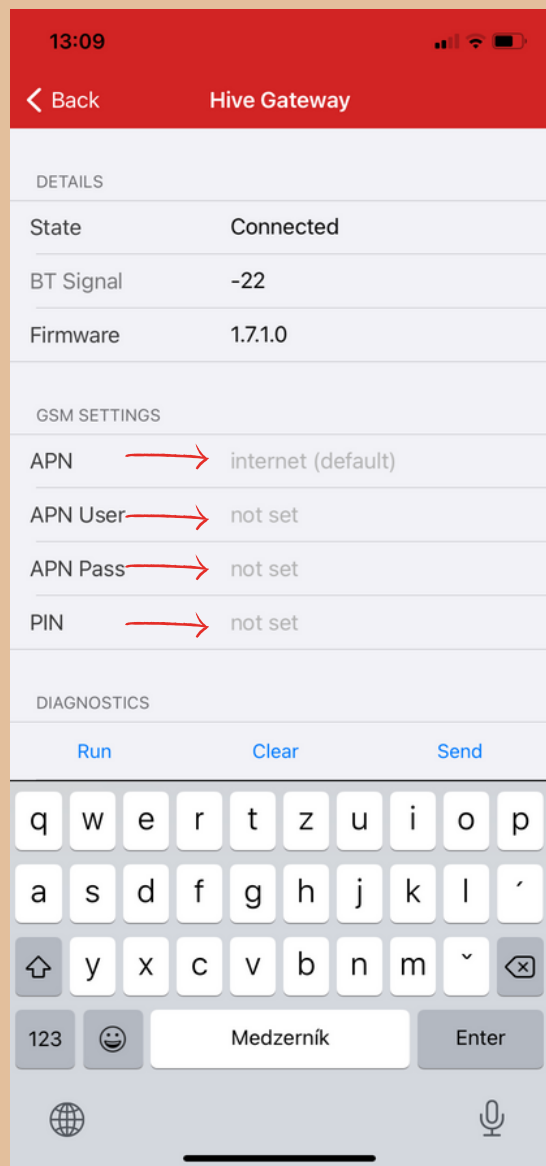
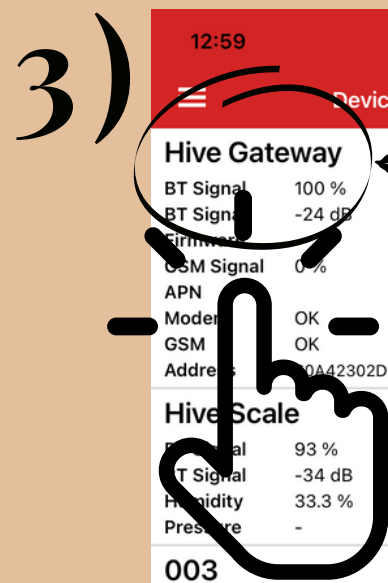
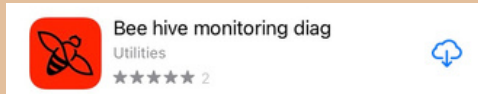
# NO BEE HIVE MONITORING SIM CARD

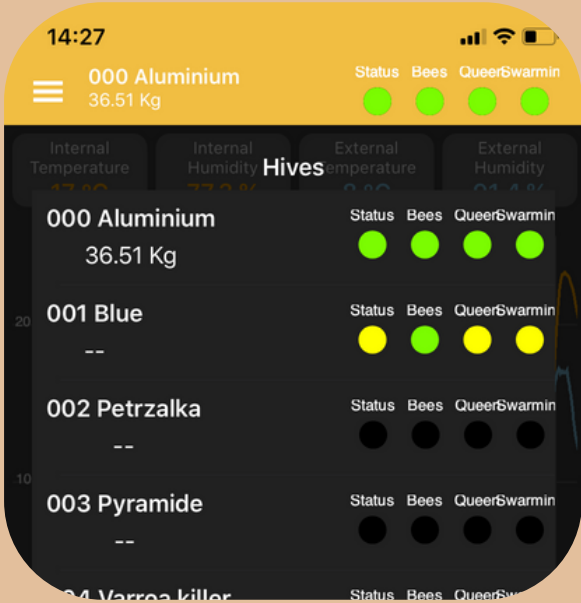
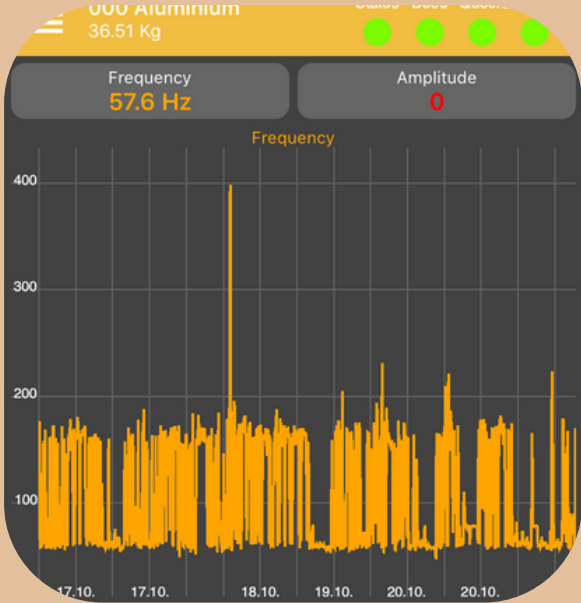
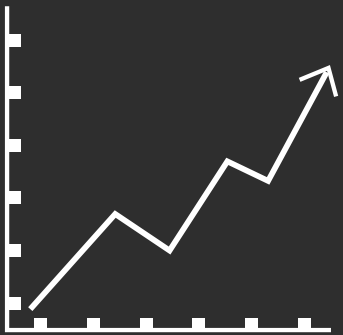


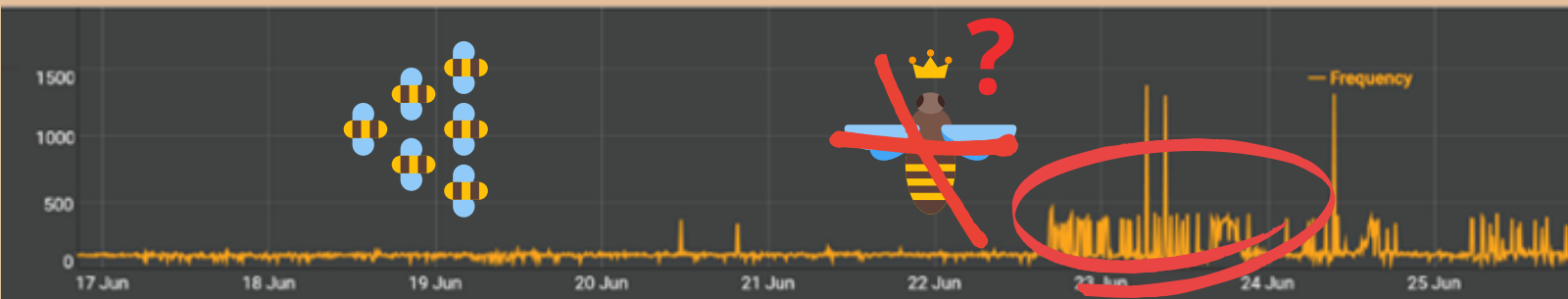
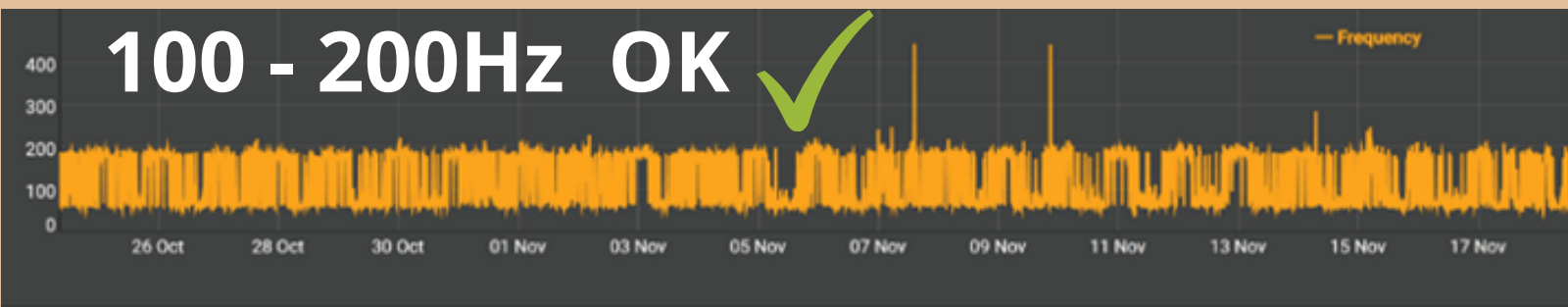
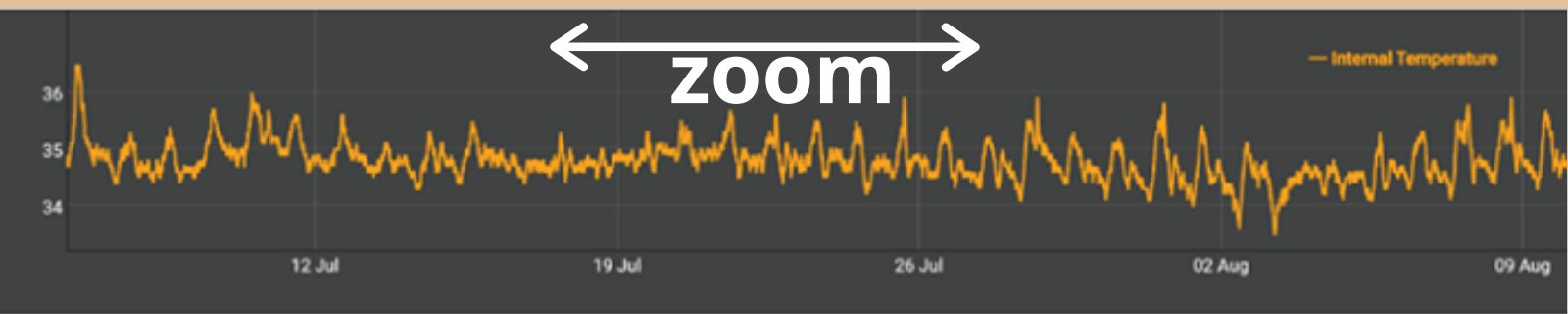
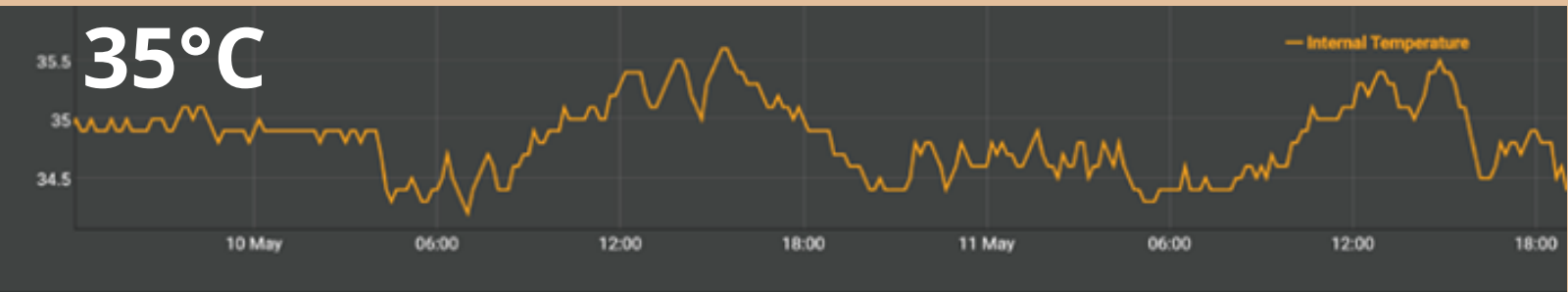
Google Play

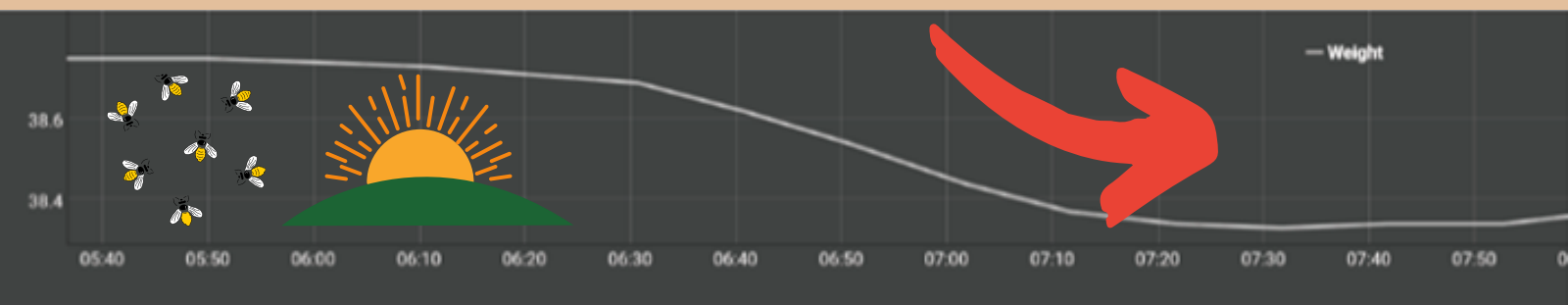


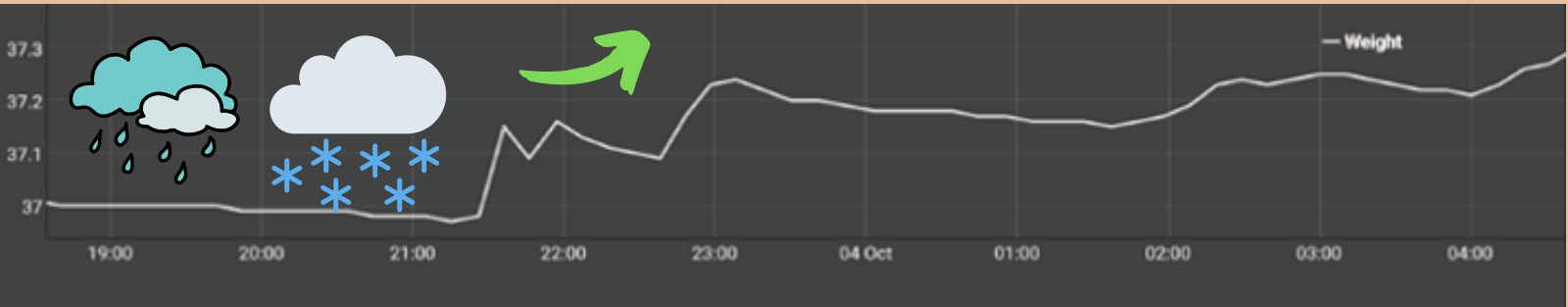
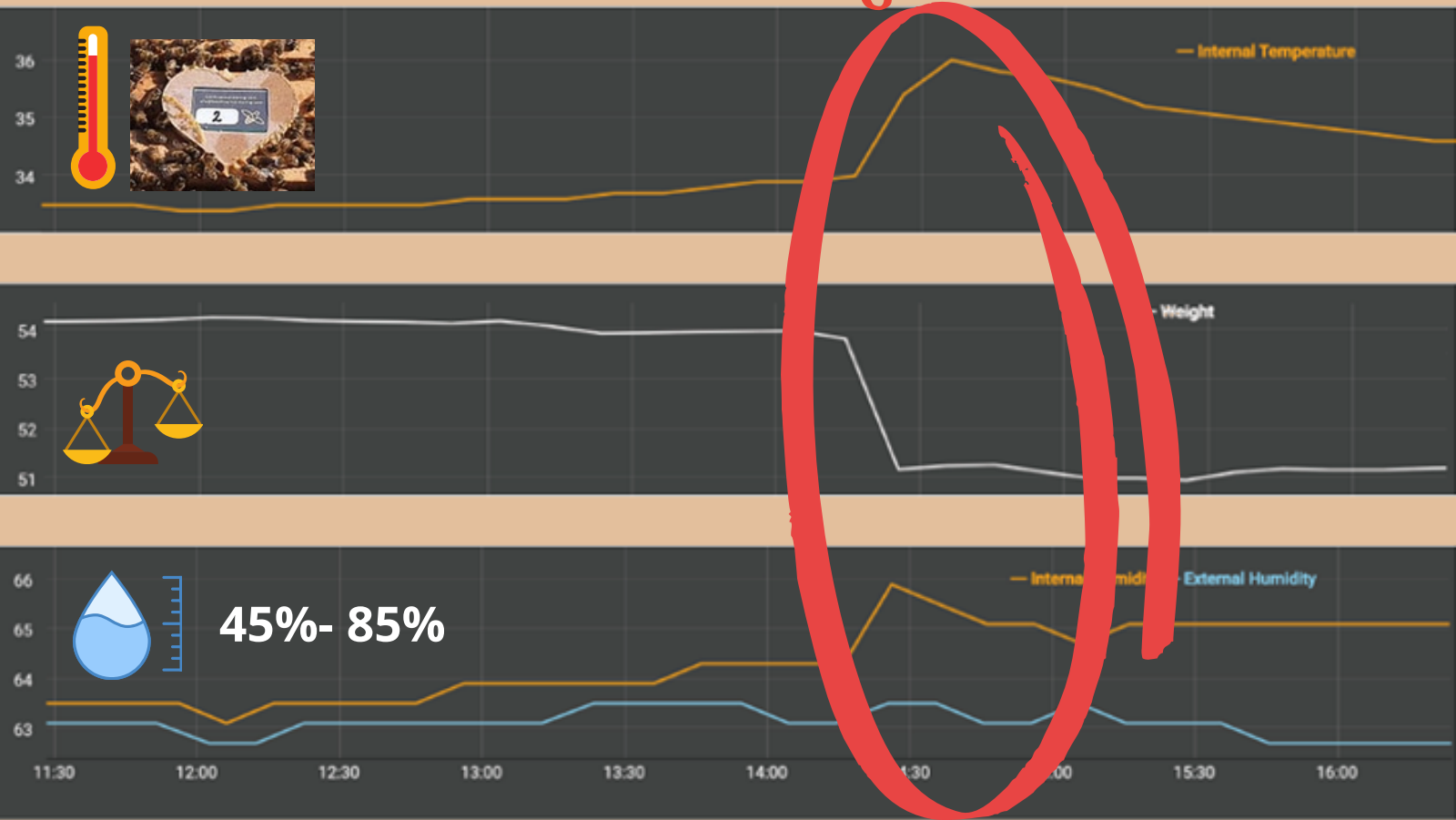
App Store



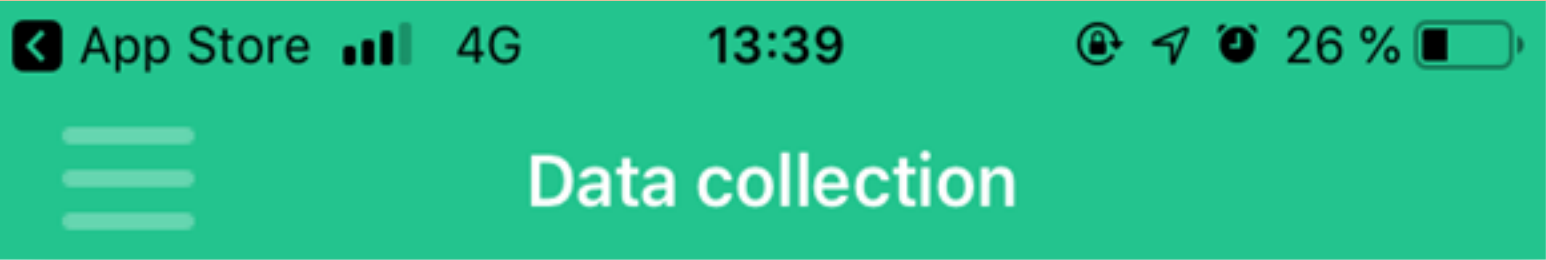
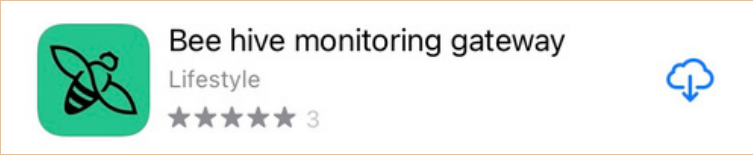








# MOBILE APPLICATION BEE HIVE MONITORING GATEWAY



# Hive Scale

External

Received: 13/12/2018 09:05:44

Sent: 13/12/2018 09:05:44

Voltage: 3.770 V

Pressure: 1011.8 hPa

Humidity: 63.1 %

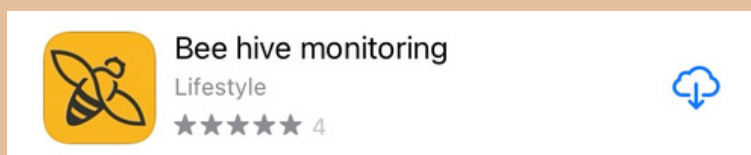
Weight: 15.15 kg

Temperatur 11.7 °C

Status: Ready

IF YOU DO NOT HAVE A GSM MODULE, YOU CAN DOWNLOAD DATA FROM THE DEVICES USING A MOBILE APPLICATION WITH A GREEN BEE ICON CALLED: BEE HIVE MONITORING GATEWAY. GO AS CLOSE TO THE DEVICES AS POSSIBLE AND AFTER LAUNCHING THE APPLICATION WAIT A FEW MINUTES FOR THE STATUS OF ALL DEVICES TO CHANGE TO "READY." IF THIS DOES NOT HAPPEN, SWIPE DOWN ON THE APPLICATION SCREEN TO REFRESH IT. TURN ON BLUETOOTH AND LOCALIZATION SERVICES

# MOBILE APPLICATION BEE HIVE MONITORING



INSTALL THE BEE HIVE MONITORING APP WITH A YELLOW BEE ICON TO YOUR SMARTPHONE EITHER FROM GOOGLE PLAY IF YOU HAVE AN ANDROID PHONE OR TABLET, OR FROM APPLE STORE IF YOU HAVE AN APPLE IPHONE OR TABLET.

AFTER INSTALLING THE APPLICATION WITH THE YELLOW ICON, TAKE A PICTURE OF QR CODE (SQUARE, THAT WAS DELIVERED TO YOU WITH YOUR ORDER). BELOW THE QR CODE THERE IS A LINK TO THE WEB (COMPUTER) VERSION OF THE APPLICATION.

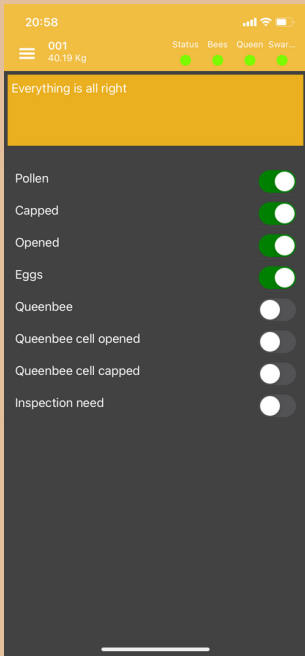
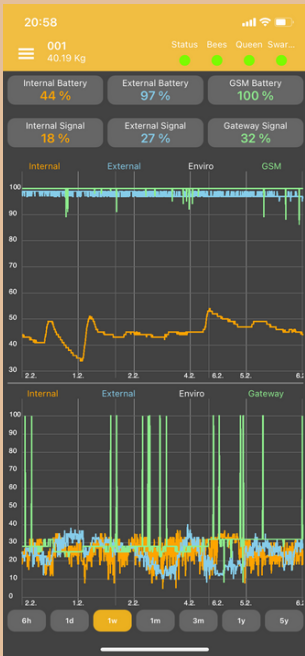
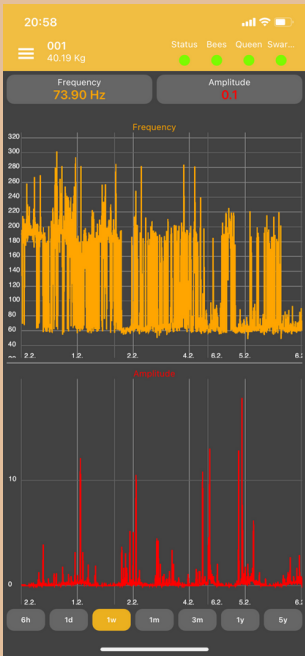
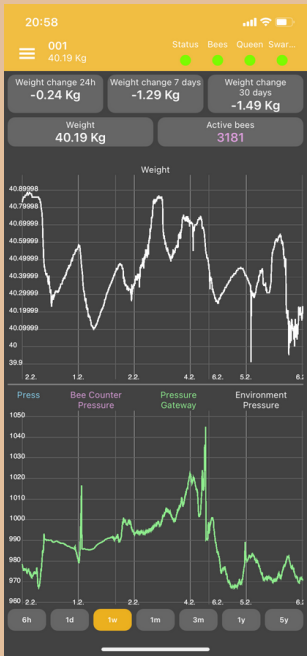
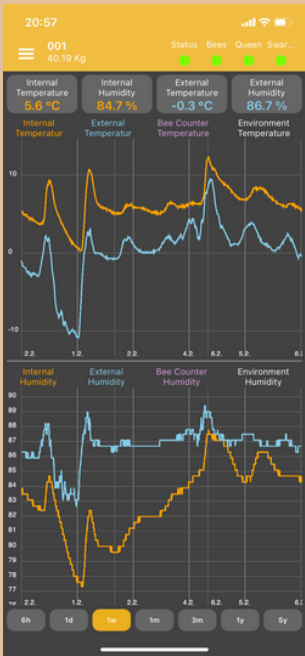
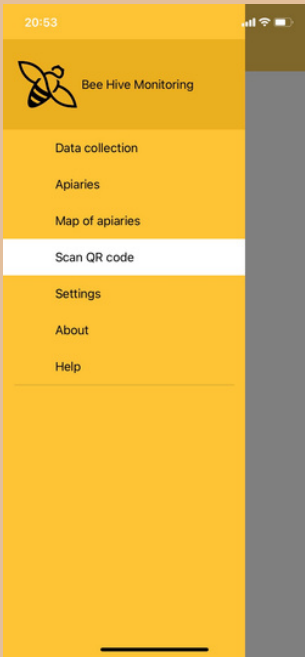
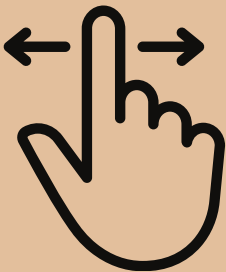
YOU CAN SWITCH THE GRAPHS BETWEEN RANGES OF HOURS, DAYS, WEEKS, MONTHS TO YEARS. THE DEVICES HAVE A COMMUNICATION RANGE OF 100 METERS IN OPEN SPACE UNDER IDEAL CONDITIONS. IF THERE IS AN OBSTACLE BETWEEN THE DEVICES, THE COMMUNICATION RANGE CAN BE SIGNIFICANTLY REDUCED TO A FEW TENS OF METERS TO SEVERAL METERS. THEREFORE, WE RECOMMEND INSTALLING THE DEVICES, SO THAT THERE IS FREE SPACE BETWEEN THE GSM GATEWAY AND OTHER DEVICES! BE CAREFUL, GRASS IS ALSO AN OBSTACLE. THE RANGE CAN ALSO BE SIGNIFICANTLY REDUCED IF THE DEVICE IS VERY CLOSE TO THE GROUND (LESS THAN 50CM).

DEFAULT SETTINGS- THE GSM GATEWAY SENDS DATA TO THE APPLICATION ONCE AN HOUR. YOU CAN CHANGE THE SENDING FREQUENCY IN YOUR MOBILE OR WEB APPLICATION.





BOTH- THE WEIGHT AND THE HEART READ THE DATA EVERY 10 MINUTES AND THESE WILL BE DISPLAYED IN YOUR APPLICATION

!!! THE HEART MUST NOT BE IN THE HIVE IF YOU ARE TREATING BEES WITH AN ACID-BASED MEDICINE OR CHEMICAL SOLVENTS SUCH AS ACETONE. !!!

# MOBILE APPLICATION BEE HIVE MONITORING



# DOCUMENTATION AND STATUS REPORT IN THE APPLICATION

-  BIG PROBLEM
-  EVERYTHING IS ALL RIGHT
-  SMALL PROBLEM
-  LACK OF INFORMATION YET



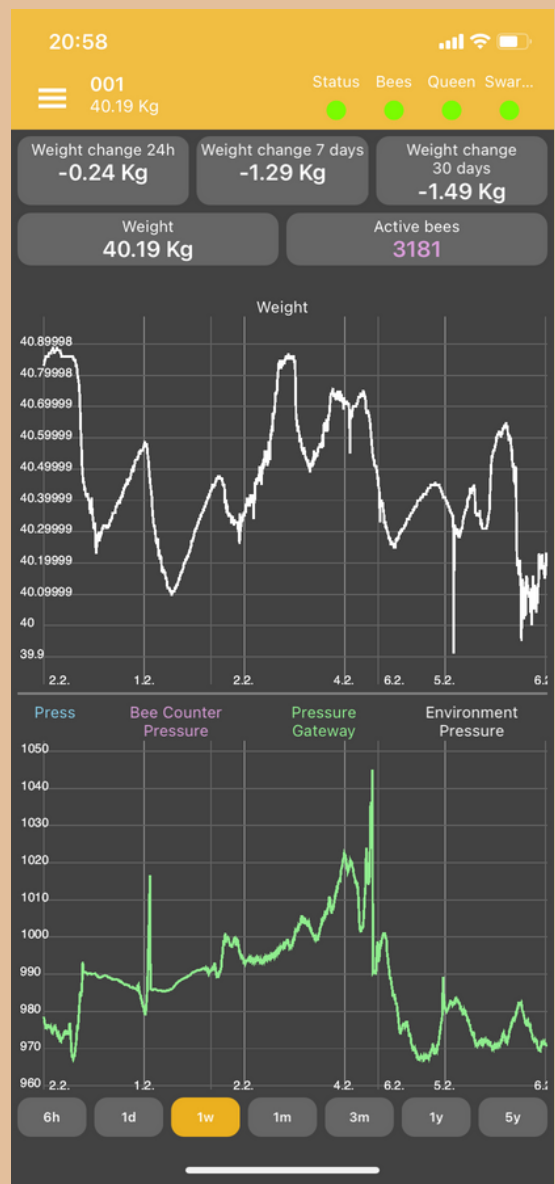
**STATUS:** OVERALL CONDITION OF THE COLONY IN COLORS. IF ANYTHING UNUSUAL HAPPENS, THIS LIGHT CAN ALERT YOU. THERE MAY BE A PROBLEM WITH THE BEE COLONY, A SUDDEN CHANGE IN WEIGHT, A DISCHARGED BATTERY OR OTHER ... DETAILS OF THE STATUS ARE DESCRIBED IN THE MOBILE APPLICATION IN THE YELLOW INFORMATION FIELD.

**BEES:** INDICATES LOW OR HIGH, UNUSUAL OR CRITICAL VALUES OF INDOOR TEMPERATURE AND HUMIDITY.

**MOTHER:** INDICATES A PROBLEM BASED ON AUDIO FREQUENCIES WITH THE QUEEN. THE STATUS DETAILS ARE DESCRIBED ON THE SCREEN OF THE MOBILE APPLICATION IN THE YELLOW INFORMATION FIELD. DATA FROM THE LAST 7 DAYS ARE EVALUATED

**SWARMING:** BASED ON SOUND FREQUENCIES, IT SIGNALS SWARM MOOD, RABIES, DISEASES, OR OTHER UNUSUAL BEHAVIOR OF THE HIVE. RED MEANS A HIGH RISK OF A PROBLEM OR OTHER PROBLEM. YELLOW MEANS READINESS FOR SWARMING. DATA FROM THE LAST 14 DAYS ARE EVALUATED

# WEIGHT



**NUMBER OF ACTIVE BEES:** THE NUMBER OF ACTIVE BEES IS CALCULATED FROM THE MORNING WEIGHT LOSS WHEN THE BEES LEAVE THE HIVE.

**WEIGHT:** DISPLAYS THE CURRENT WEIGHT AND DAILY, WEEKLY OR MONTHLY INCREASES OR DECREASES. THE WEIGHT IS SENSITIVE TO WEATHER (FROST, DEW, RAIN, DIRECT SUNLIGHT). THEN THE WEIGHT MAY OSCILLATE. HOWEVER, IT IS COMPLETELY SUFFICIENT FOR BEEKEEPING NEEDS.

**PRESSURE:** THE PRESSURE SENSOR IS PART OF THE GSM GATEWAY, IF YOU DO NOT HAVE IT, THE PRESSURE WILL NOT BE DISPLAYED. BASED ON THE PRESSURE, YOU HAVE AN OVERVIEW OF THE WEATHER AT YOUR APIARY. IF THE PRESSURE RISES, THE WEATHER WILL ALSO IMPROVE.

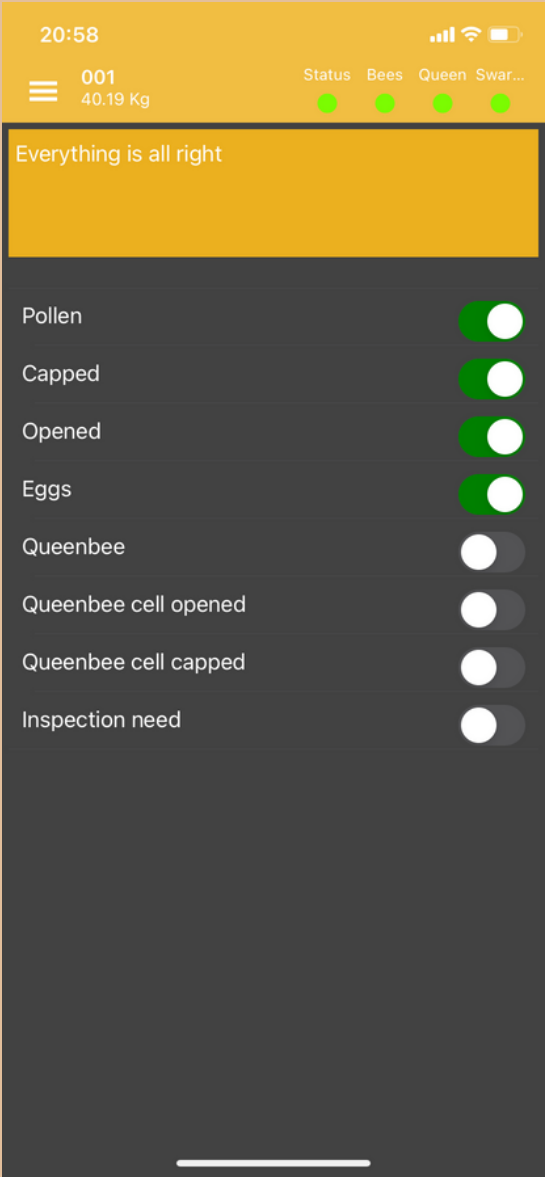
# FREQUENCY



**FREQUENCY OF SOUND:** BEES ALSO COMMUNICATE BY SOUND, MAINLY BY CHANGING THE FREQUENCY OF THE SOUND EMITTED. FROM THE FREQUENCY OF SOUND WE CAN IDENTIFY THE MISSING QUEEN (BEE CRY). SIMILARLY, WE CAN IDENTIFY THE BEE'S READINESS FOR SWARMING. THE STANDARD FREQUENCY OF SETTLED HIVES IS UP TO 200HZ. AS THE HIVE PREPARES FOR SWARMING, THE FREQUENCY RISES TO 240HZ. IF THE HIVE IS IN A SWARM MOOD, THE FREQUENCY WILL RISE ABOVE 270HZ. IF THE FREQUENCY OF THE SOUND EXCEEDS 300HZ, THE BEE COLONY WILL SOON EMERGE (DUE TO THE CURRENT WEATHER).

**AMPLITUDE:** TOTAL NOISE OF THE HIVE. FROM THIS DATA, THE ACTIVITY OF THE HIVE OR THE REACTION OF THE HIVE TO VARIOUS STIMULI SUCH AS TREATMENT, NECTAR LAYING, INTRUDER ATTACK AND OTHERS CAN BE READ. DATA RANGE FROM UNITS IN WINTER TO TENS TO HUNDREDS FOR STRONG BEE COLONIES IN SUMMER.

# STATUS



**YELLOW MESSAGE BOX:** THE YELLOW FIELD DISPLAYS TEXT INFORMATION THAT EXPLAINS THE COLOR STATUSES IN MORE DETAIL AND INFORMS THE BEEKEEPER ABOUT UNUSUAL BEE CONDITIONS.

**SWITCHES:** WITH THE SWITCHES, THE BEEKEEPER CAN SET HIS OBSERVATION ON WHETHER THE BEES ARE WEARING POLLEN, HAVE A CAPPED FETUS, AN OPEN FETUS AND FRESH EGGS, OBSERVING THE PRESENCE OF THE MOTHER IN THE HIVE, OBSERVING THE MOTHER CELLS AND STATUS OF THE NEED FOR CONTROL. THE SWITCHES DO NOT AFFECT THE EVALUATED DATA, THEY ARE ONLY NOTES

# BATTERY / SIGNAL



**BATTERY STATUS:** THE HEART BATTERY MOVES IN THE RANGE OF 2.5V TO 3V. BATTERY SCALES AND GSM GATEWAYS MOVE IN THE RANGE OF 3.6V TO 4.2V THE HEART BATTERY LASTS 1 YEAR, THEN IT IS NECESSARY TO REPLACE IT. IT IS NOT RECHARGEABLE (THE TYPE OF BATTERY IS CR 2032, BUY BRANDED QUALITY BATTERIES BECAUSE THEY HAVE UP TO 10 TIMES MORE ENERGY CAPACITY THAN NON-BRANDED ONES). THE BALANCE BATTERY LASTS 5 YEARS PER CHARGE AND CAN BE RECHARGED. JUST CONNECT THE CHARGER TO A MOBILE PHONE OR POWER BANK. THE BATTERY OF THE GSM GATEWAY LASTS 3-12 MONTHS AND CAN BE RECHARGED. JUST CONNECT THE CHARGER TO A MOBILE PHONE OR POWER BANK. SEE THE PRODUCT VIDEO FOR HOW TO CHARGE

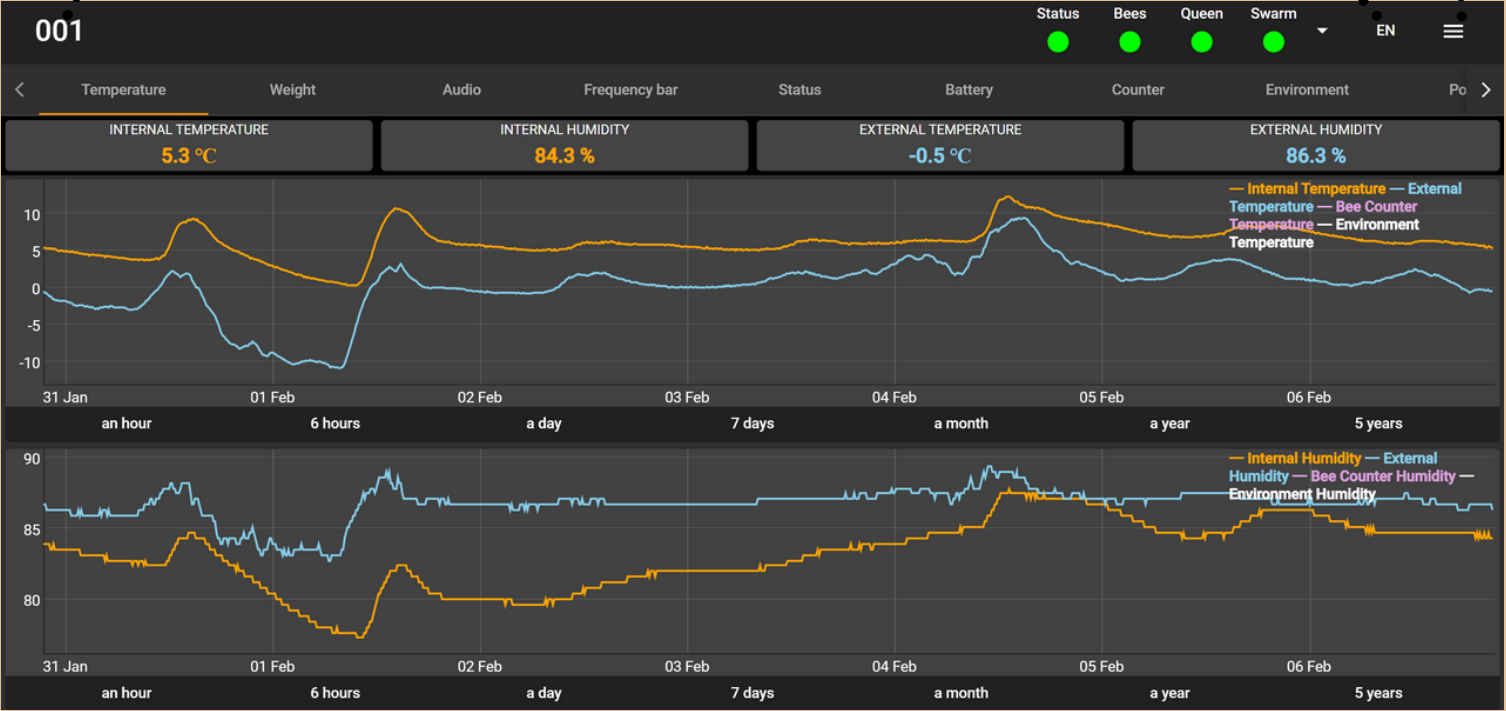
**SIGNAL STRENGTH:** THE SIGNAL OF EACH DEVICE SHOULD BE IN THE RANGE OF ZERO TO MINUS 90. THE CLOSER TO ZERO, THE STRONGER THE SIGNAL. IN GENERAL, IF THE SIGNAL IS BAD, IT IS NECESSARY TO PLACE THE GSM GATEWAY IN SUCH A POSITION THAT THERE IS A MINIMUM OF OBSTACLES BETWEEN IT AND OTHER DEVICES. GRASS IS ALSO CONSIDERED AN OBSTACLE. THE GSM GATEWAY SHOULD BE AT LEAST 50 CM FROM THE GROUND, OTHERWISE THE RANGE IS SIGNIFICANTLY SHORTENED. THE SIGNAL STRENGTH IS GREATLY INFLUENCED BY THE MUTUAL ROTATION OF THE DEVICES

# USING WEB APPLICATION

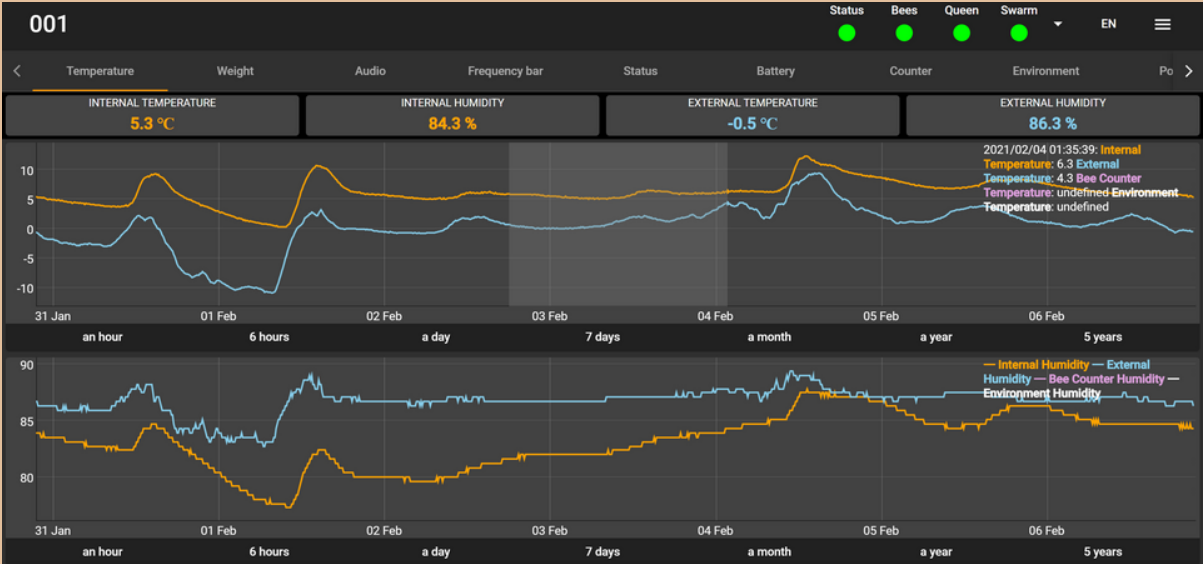
CHOSE THE HIVE

LANGUAGE

MENU



NAVIGATING THE SCREEN IN A WEB APPLICATION IF YOU PRESS THE SHIFT KEY ON THE KEYBOARD AND THE LEFT MOUSE BUTTON IN THE GRAPH AREA AT THE SAME TIME, YOU CAN SCROLL LEFT AND RIGHT WITH THE GRAPH. MARK A TIME PERIOD IN THE GRAPH WITH THE LEFT MOUSE BUTTON TO SEE MORE DETAILS ABOUT THIS TIME PERIOD.





# BEE HIVE MONITORING

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