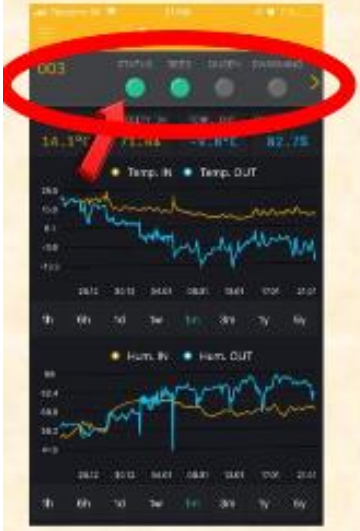

Red: big issue
Green: everything is OK
Yellow: small issue
Grey: not enough data

STATUS: Indicates overall state of colony and technology. If anything goes unusual this it changes the color. E.g. Problem with colony, sudden extream change of weight, low battery and so on. You can find details at 4th screen of mobile app in the yellow information array.

BEES: Indicates low or high, unusual or critical numbers of internal temperature and humidity. You can find details at 4th screen of mobile app in the yellow information array.

QUEEN: Based on sound frequencies indicates problem with the queen. You can find details at 4th screen of mobile app in the yellow information array.

SWARM: Based on sound frequencies indicates different stages of swarming mood. Red indicates high risk of swarm. Yellow colour sais, bees are preparing to swarm. You can find details at 4th screen of mobile app in the yellow information array.

NUMBER OF ACTIVE BEES: is calculated by weight movement.

WEIGHT: Actual weight is displayed with daily, weekly or monthly differences. Scale is sensitive to weather (frost, dew, rain, direct sun light). Then the weight can oscilate. But for beekeeper it is acceptable.

PRESSURE: Sensors are part of GSM gateway. If you do not have GSM gateway, it wont be displayed. Based on pressuer, you have an overview of the weather on your apiary. The higher pressure, the better weather.

FREQUENCY: Bees communicate with buzz. Mainly by change of frequency. From this change, we can identify missing queen (bees cry). Also, we can say when they are ready for swarming. Standard frequency of bee colony is 200 Hz. If they are ready for swarming they change to 240Hz. In swarming mood it is 270Hz and by 300Hz you have only short period until they swarm (depending on the weather).

AMPLITUDE: Overall noise of bee colony. From that number, we know an activity of colony and it's excitement from different events (healing, nectar harvesting or attack of intruder...). The range starts at singles in the winter trough tenths up to hundreds with strong beecolony in summer.

YELLOW FIELD WITH MESSAGES: In this field, you see text information, explaining red and yellow status bars and informs beekeeper about anomalies.

SWITCHES: Beekeeper saves his observation with switching the switch. For example: do bees harvest pollen, do they capped feetus, opened feetus, fresh eggs, observation if queen cells are present and status of necessity of control.

BATTERY STATUS: Hive heart battery voltage range is from 2.5V to 3.5. Battery of scale and GSM gateway range is between 3.5V to 4.2V. Battery in hive heart lasts for one year afterwards, it needed to be changed - not possible to recharge (CR 2032). Scale Battery lasts 2-5 years and is rechargeable possibly with powerbank or with mobile phone charger. Battery in GSM gateway lasts 3-6 months and is rechargable same way as scale battery.

SIGNAL STRENGHT: Signal of devices should be in range from 0 to -90. The closer to 0 the stronger the signal. As best practice is when the signal is low it is important to place GSM gateway in such position so between GSM gateway and other devices is as less obstacles as possible. Grass is also considered as obstacle. GSM gateway should be at least 50cm above the ground otherwise the coverage scales down rapidly.