

tinyML[®] for Good

Tiny technology for the world's biggest challenges

How tinyML powered precision beekeeping could help save the bees and improve honeybee yields

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www.tinyML.org

Problem

1/3

Food depends on
bee pollination



30%

Annual bee colony
loss



Traditional Bee Keeping

Hive Heists

A reported case of up to 40 hives
lost in a night

Human-Honey badger conflicts

14% of annual hive destruction

Pest & disease infestation

Mostly due to poor hive
microclimate

Solution



ibees

An AI powered beehive monitoring solution to help farmers monitor the health of their beehives in real time on their phone.

Hive too hot that may reduce honey quality & also indication of brooding cycle

Hive too dumpy may lead to pest & disease infestation, fungi & Mould growth

Measuring hive weight to keep track of honey production & bee colony population



Hive knocked over or in the process of being stolen

- Queen not laying
- Colony about to swarm
- Bees disturbed



Next steps

- Currently working with 10 bee farms and bee experts to improve on the device and find more insights on data collected.
- Ibees device is undergoing redesign into a custom cheap circuit for easy scale-up.
- Looking for partners to unlock more possibilities on ibees' radical approach to precision beekeeping & impactful bee farming:
 - Bee Conservation experts
 - Technical Partners (Hardware & Cloud Support)
 - Sponsorships (Grants)

