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2022-2023 Quality Education Fund Thematic Network - Tertiary Institutes
STEM Project Team

SCHOOL: S.K.H. Leung Kwai Yee Secondary School

TOPIC: Mosquito Trap

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Topic - 1

Utilizing the living nature of mosquito to attract them to come into the trap which will be settled in three places with different containers, like sugar water, acid-base solution and soap-suds.

The amounts of mosquito will largely different where in biological garden and playground or the back of the canteen, which shows environment effects.

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Experiment - 1

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Result - 1

10 different kinds of larva, but only one mosquito larva.

The trap still put in the same place for one more week, and there is no better result in this condition.

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Topic - 2

- Based on the experiment 1, added one fan as another factor to attract mosquito.
- Settled in biological garden where has a mass of mosquito.

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Experiment - 2

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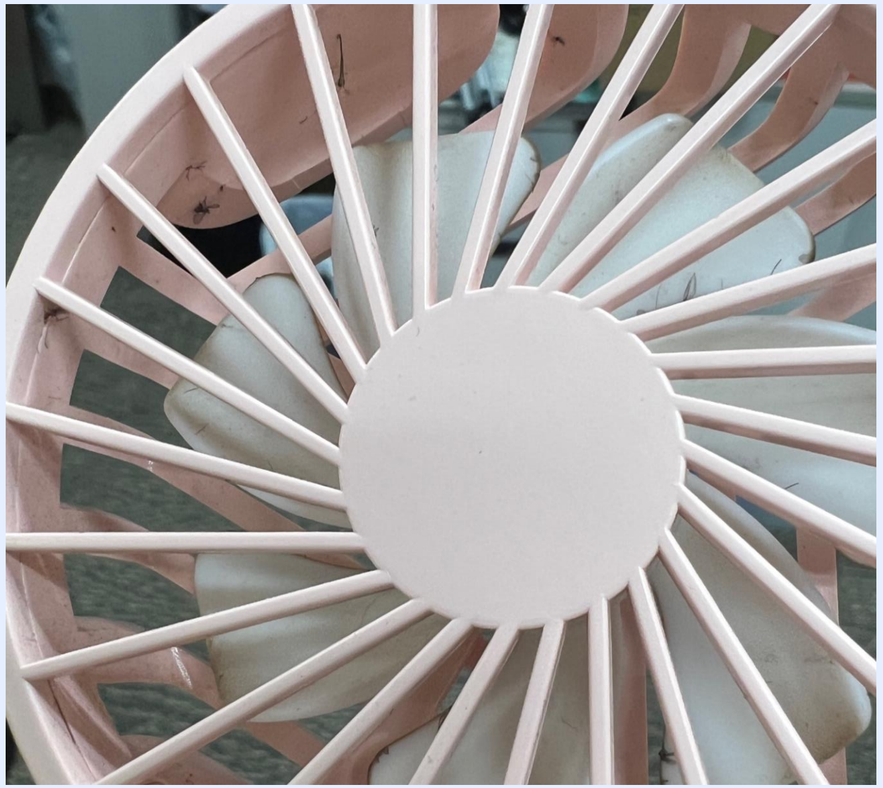
Experiment - 2



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Result - 2

Pellucid Cup	Milk Cup	Fan
1	6-10	6

Conclusion:

The sugar water not so attractive for mosquito in this high concentration environment.

Power Bank	Time
10000mAh	around 15 hours

Power Bank:

The power bank continually work for around 15 hours until it out of battery.

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Topic - 3

- The service life of power bank with fan different in sizes and specified voltage
- Power line connections with 2.54 wires
- Using plastic strips to lose wire from breaking

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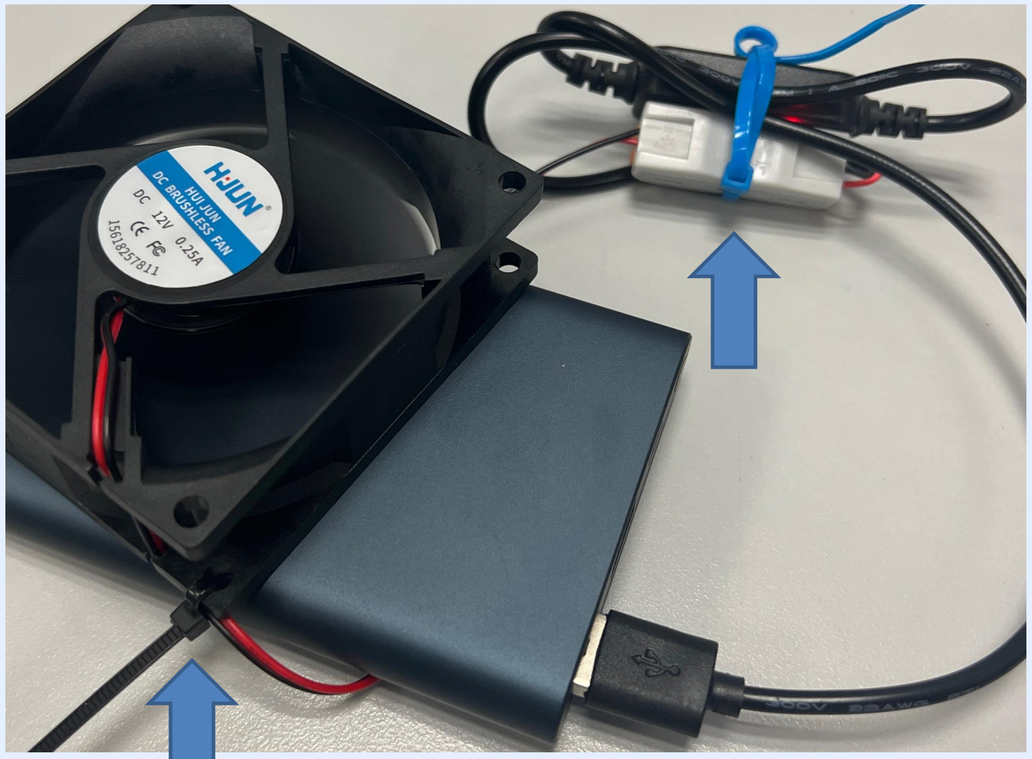
Materials

USB Transportation



Voltage Regulator
升壓線

Plastic trips to
lose and control

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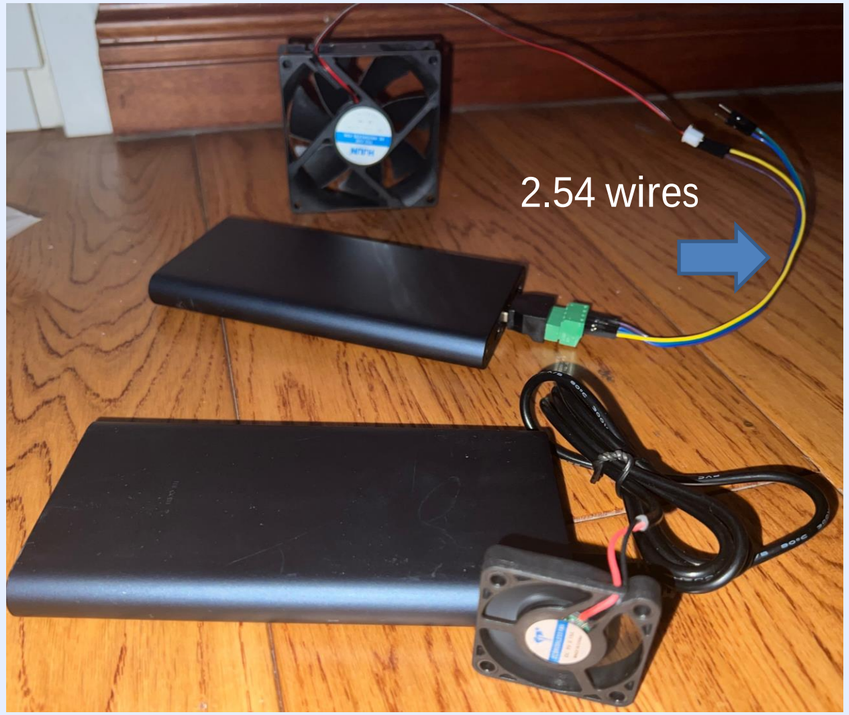
Experiment - 3



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Result - 2

Output Voltage	Fans Voltage	Sizes	Power life (10000mAh)
5v	5v	4cm*4cm	10-15 seconds
5v	12v	4cm*4cm	10-15 seconds / 90mins for one time
5v	12v	8cm*8cm	10-15 seconds
12v	12v	4cm*4cm	72 hours

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