

Dr Neal Aggarwal FIMIS, FBCS

AI Engineer

Chairman Amateur Radio Emergency Network of the Radio Society of Kenya

RSK - AMRAN

Disclaimer: I have no financial ties to any of the products/organizations/hardware and/or software mentioned in this presentation. I stand to make no money at all from what I am talking about herein. My interest is in promoting radio usage in the region in particular in response to disaster and emergency response.

<https://drnealaggarwal.info>

Who am I and what are my interests:

AI Engineer

in the Medical/Surgical and Finance/Crypto arenas

Surgeon – computer vision and guided robotics

Open Source proponent

Core Dev - Linux, Ubuntu BIOS/MBR bootloader now EFI/UEFI

CryptoCurrency Hedge Fund Manager

Core Beliefs:

Remove concentration of power in large organisations

Fix disinformation generated by big pharma & big agra

Distributive systems – bitcoin-core dev

The World Computer – Ethereum core dev

Distributed Communications – LoRa/Meshtastic/Meshcore

Open Source Medicine especially nutritional science

... to ultimately usher in the next step in human
evolution >> AGI

Meshcore

- Low cost
- 2300/- on AliExpress (MPESA, door delivery)
- Smartphone leveraging
- Ease of installation (<https://flasher.meshcore.co.uk>)
- Unlicensed (ISM Band)
- Free App (smart phone penetration in KE)
- Automatic Mesh (no digipeater)



HELTEC



Meshtastic Wifi Heltec LoRa 32 V3 With Case 868MHZ ESP32 Oled SX1262 0.96 Inch Blue OLED Display Development Board for Arduino

★★★★★ 4.8 127 Reviews | 1,000+ sold

11.11 SALE • Welcome deal

Ends : Nov 20, 10:59 (GMT+3)

KES2,207.00

Save KES3,330.00

KES5,537.00

Pay in KES, Shop the World

Tax excluded, add at checkout if applicable

% KES408.00 off on KES2,040.00

Color: With Shell



Package: 868MHz

433MHz

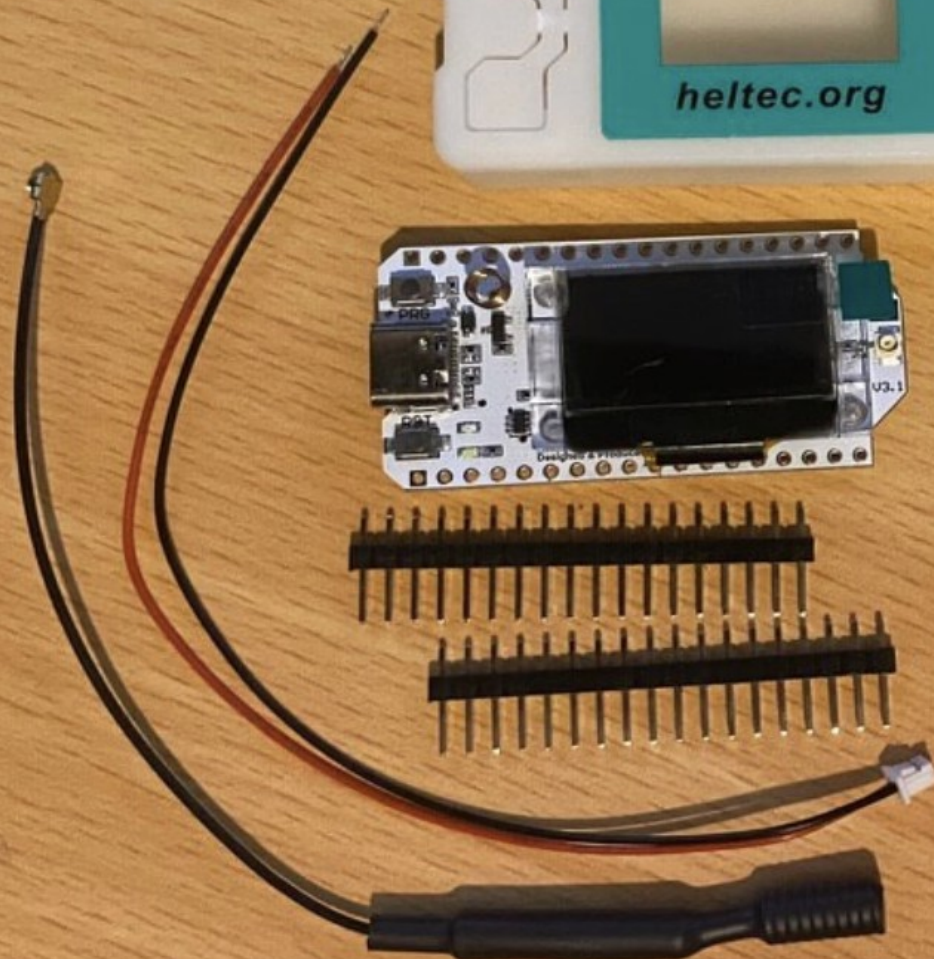
868MHz

915MHz



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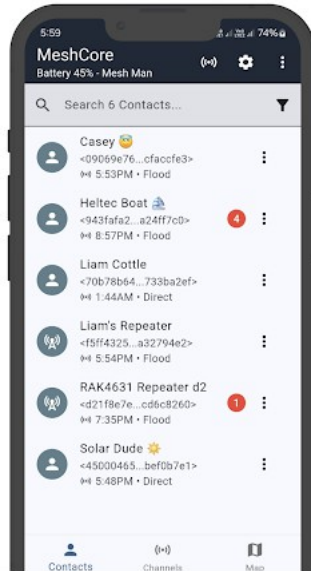




MeshCore

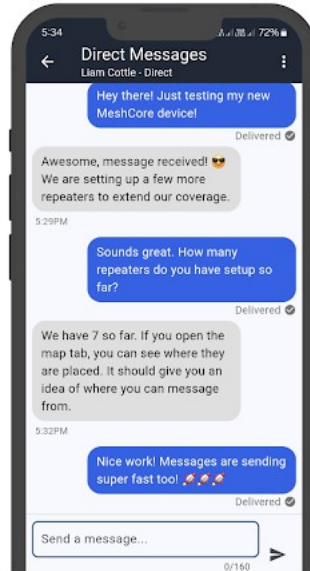
Simple Design

Get started fast with our super simple design. You'll be communicating on your own mesh network in no time!



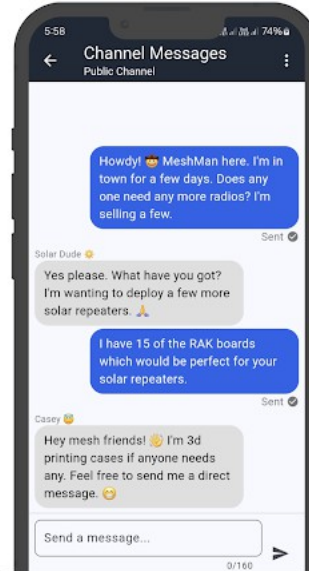
Secure Messaging

Direct messages are encrypted with your unique identity keys before they travel across the mesh to your intended recipient.



Custom Channels

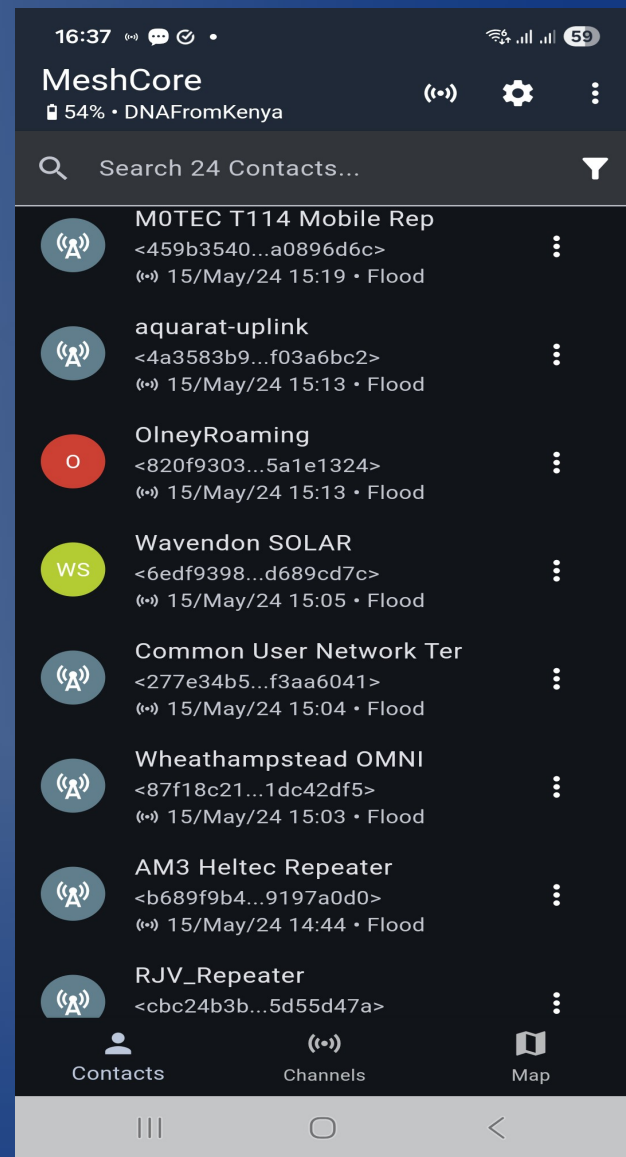
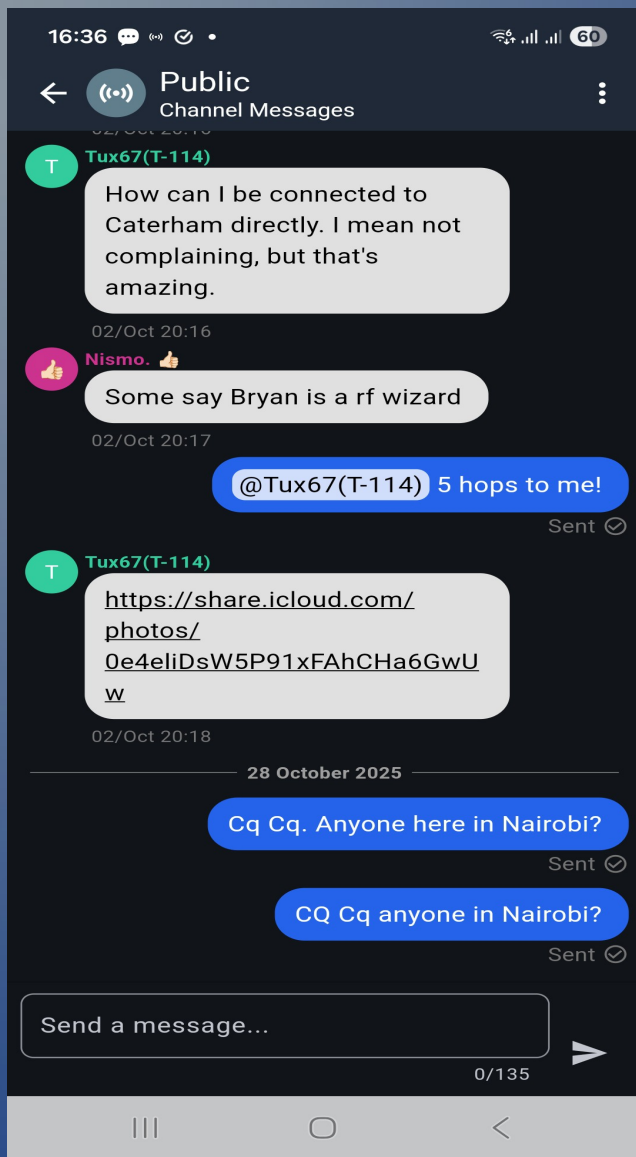
Create your own channels. From private group chats with friends, to public messaging across a whole city. You're in control!



Network Map

Get a visual overview of your Mesh Network. Understand where you have coverage, and where you need more repeaters.





The core **mission** revolves around adoption

Given the attributes surrounding the hardware and software

- affordability,
- ease of use,
- easy deployment,
- Usefulness

we should have few if any barriers to entry . We just have to get the word out there.

The simple and straight forward **vision**

- Individuals need to be sold on the idea so they will
 - Buy the hardware
 - Install the app
- Flash the software onto the radio
 - Start messaging


--- and **WE need to build out the network of repeaters**

D5 Solar LoRa RAK Module

Build an efficient, low-power IoT solution with the RAK 4631 LoRa Module



Repeater / Room server USB setup

To exit full screen, press and hold esc Disconnect

Info & Actions

Version

v1.10.0-9405e8b (Build: 13-Nov-2025)

Clock


15:10 - 16/11/2025 UTC

Public Key

6887F9ED8FF8A604A24147D567FFD95F53AC81585D9F016720CE32

Role

repeater

 Send Advert Start OTA Reboot Factory reset

Name & Location

Name

DNA Repeater1

Latitude

-1.23248

Longitude

36.7909202



Access

Guest password

New Admin password

Radio settings

Preset

EU/UK (Narrow)

Frequency(MHz)

869.618

Bandwidth(kHz)

62.5

Spreading factor

8

Coding rate


8

TX Power(dBm)

22

Airtime factor

1

 Save settings