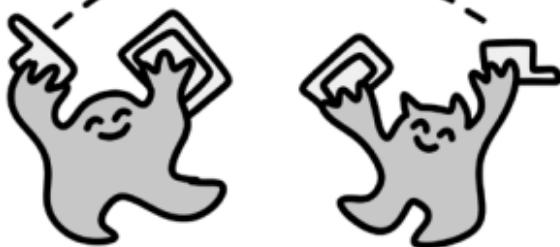


MESH NETWORKS

meshtastic



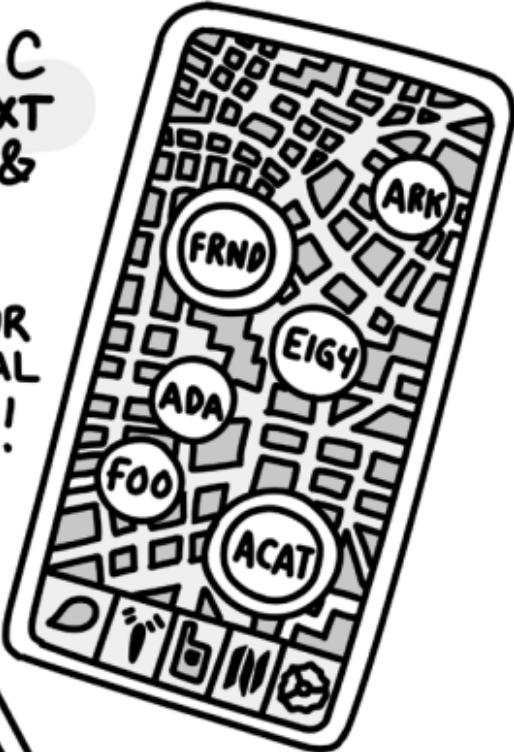
WANT TO TEXT
ON A NETWORK
WE BUILD TOGETHER?

MARIE LEBLANC FLANAGAN

WHAT IS MESHTASTIC?

MESHTASTIC
IS A WAY TO TEXT
LOCAL FRIENDS &
NEIGHBOURS

NO WIFI OR
CELL SIGNAL
NEEDED!



YOU'LL NEED
A SPECIAL
DEVICE



WHY MESH?



IT'S FREE TO USE: NO FEES OR SUBSCRIPTION COSTS.



WORKS ON HIKES AND OUTDOOR ADVENTURES!



PRIVATE & ENCRYPTED, NO TECH GIANTS CREEPING ON YOU



OPEN-SOURCE, EVERYONE CAN PLAY WITH IT



WORKS IN STORMS, OUTAGES, DISASTERS & SHUTDOWNS



NO CELL SERVICE OR WIFI NEEDED AT ALL!



DIRECT MESSAGES, PUBLIC CHATS & PRIVATE GROUPS



IT'S FUN! FEELS LIKE EARLY INTERNET MESSAGE BOARDS



WHAT'S THE



KEEP IT SHORT:
200 CHARACTERS MAX.
BUT SEND AS MANY
MSGS AS YOU WANT,
IT'S FREE. LINKS &
EMOJI WORK TOO!



KEEP IT LOCAL:
RADIO WAVES CAN GET
BLOCKED BY BUILDINGS,
TREES & BARRIERS.
RANGE MATTERS!



DECENTRALIZED
& ENCRYPTED MEANS
ANYONE CAN SEND ANY
MSGS THROUGH YOU, EVEN
ONES YOU DON'T LIKE.

CATCH?



LONELY: NOT MANY PEOPLE ARE USING MESHTASTIC YET. YOU WILL HELP CHANGE THIS!



PRIVACY: LOCATION IS ON BY DEFAULT, TURN IT OFF IN THE TERMINAL.



BUGGY: IT'S NEW TECH (2020) SO THERE ARE SOME BUGS!

BOTTOMLINE

MESHTASTIC IS FOR LOCAL TEXTING, HIKING, INTERNET SHUTDOWNS, DISASTERS & EVADE TECH GIANTS. IT'S NOT FOR CROSS COUNTRY CHATS

WHAT'S A MESH NETWORK?

THERE ARE MANY KINDS OF MESHES!

A MESH IS A WAY
TO SEND DATA



USING PHONES
OR COMPUTERS



RATHER THAN
SENDING DATA
THROUGH A
CENTRALIZED
PATH



IN A MESH WE ALL
PASS ON ENCRYPTED
DATA FOR EACH OTHER,
LIKE A SPIDERWEB

WHAT IS A MESSHTASTIC MESH?

RUN BY
US

AN OPEN-SOURCE
MESH NETWORK

BELONGS
TO US!

TEXT
ONLY

FOR SENDING
ENCRYPTED
TEXT MESSAGES

PRIVATE
ISH

ETERNAL

USING
LOW-POWER
LONG-RANGE
RADIO WAVES

CAN USE
SOLAR

100 KM
+

EVERYONE
NEEDS A
POCKET-SIZED
DEVICE

TO SEND,
RECEIVE &
PASS ON
MESSAGES

THAT CAN BE
USED WITH OR
WITHOUT A
PHONE



MESH MESSAGES

★ EVERYONE ON THE MESH
HELPS PASS MESSAGES ON ★



HOW FAR

IT DEPENDS! RADIO
BLOCKED BY HILLS, BU-



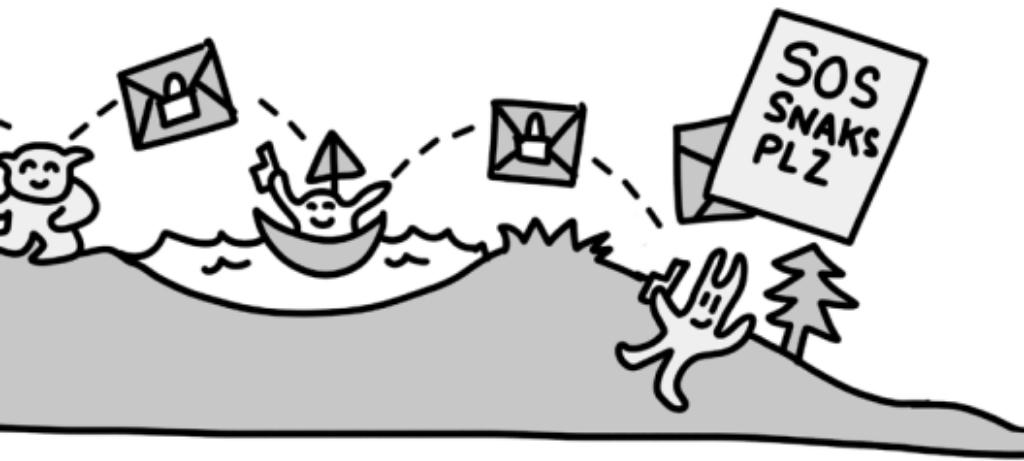
7 URBAN
0.5 - 2 KM
DENSE CITY



SUBURBAN
2 - 5 KM
HOUSES+TREES

'HOP' TO GO FAR

MESSAGES CAN 'HOP' 7 TIMES
TO PRIVATELY REACH A FRIEND



IS A HOP?

WAVES CAN BE
BUILDINGS & TREES



RURAL/OPEN
5-15 KM
FIELDS+TREES

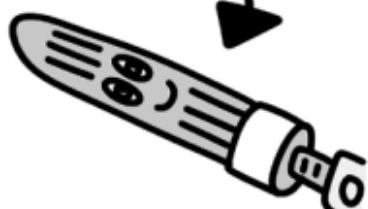


ELEVATION
100+KM
MOUNTAINTOPS 8

WHAT'S INSIDE

BRAIN: A TINY COMPUTER OR MICROCONTROLLER (ESP32 OR NRF52) RUNS EVERYTHING

ANTENNA: MAKES RADIO WAVES GO THE DISTANCE



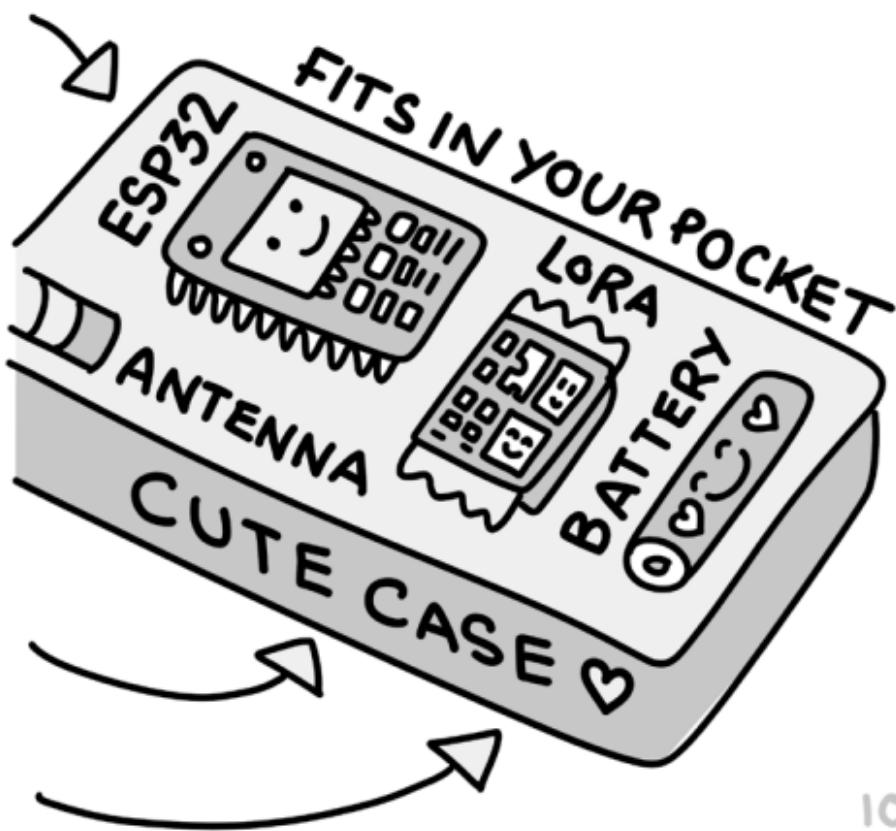
RADIO: SPECIAL LONG RANGE RADIO SENDS THE MESSAGES THROUGH THE AIR

POWER: A SMALL BATTERY KEEPS IT GOING FOR DAYS OR WEEKS (USB OR SOLAR-POWERED)

A DEVICE (NODE)?

CONNECT USING THE
APP ON YOUR PHONE

OR GET A DEVICE WITH
A SCREEN & KEYBOARD,
THEN NO PHONE NEEDED!



HOW TO GET ON THE MESH

- ① **Buy or build a LoRa device**
- ② **Add the firmware: download at [FLASHER.MESHTASTIC.ORG](http://flasher.meshtastic.org)**
- ③ **Get the app: Android, iPhone, or web at [MESHTASTIC.ORG](http://meshtastic.org)**
- ④ **Connect: turn on Bluetooth; tap + in the app; set your region; and name your device**
- ⑤ **Start messaging: find your friends (or write new friends)**

WANT TO BE A MESH HERO?
INSTALL EXTRA RELAY DEVICES
UP HIGH TO HELP EVERYONE'S
MESSAGES GO FARTHER

GET A DEVICE, AKA, INODE



LILYGO T-DECK PLUS
BUILT-IN SCREEN & KEYBOARD
NO PHONE NEEDED!
\$95 CAD



SEEED T1000-E
\$55 CAD



THINKNODE M1
BUILT-IN SCREEN
\$73 CAD



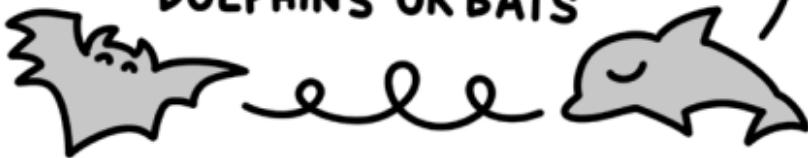
RAK WISMESH TAG
\$55 CAD

YOU CAN ALSO 3D PRINT A CASE, GET
A BATTERY, AND USE A LILYGO T-BEAM
OR HELTEC LORA 32 V3 (\$35)



WHY RADIO?

MESHTASTIC USES LORA
(LONG RANGE RADIO) BECAUSE
IT GOES FAR ON VERY LITTLE
POWER, USING CHIRPS LIKE
DOLPHINS OR BATS

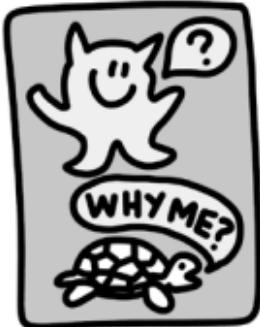


LORA USES LICENSE-FREE SUB-GHZ
RADIO, MAKING THIS DO-IT-TOGETHER
& PUNK COMMUNICATION POSSIBLE!



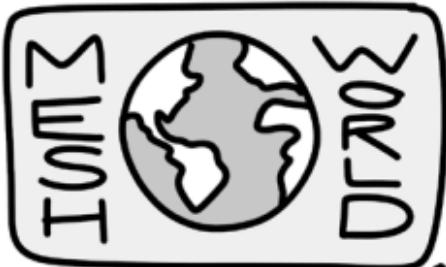
MESHTASTIC REGIONS

- ➡ EUROPE: 868 MHZ
- ➡ AMERICAS/TURTLE ISLAND: 915 MHZ
- ➡ ASIA-PACIFIC: 921-923 MHZ



THE MESH ISN'T
JUST FOR PEOPLE
SCIENTISTS USE IT
TO NETWORK PLANTS
AND ANIMALS TOO

IN THE
FUTURE
WHAT COULD
WE MESH?



@OMARIECLAIRE
MARIEFLANAGAN.COM

WANT TO
TEXT FRIENDS
AND NEIGHBOURS
WITHOUT NEEDING
CELL TOWERS
OR INTERNET
WITH PRIVACY AND
WITHOUT TECH GIANTS
FOR (ALMOST) FREE
ON A NETWORK WE
BUILD AND RUN
TOGETHER?

