

*meshastic*



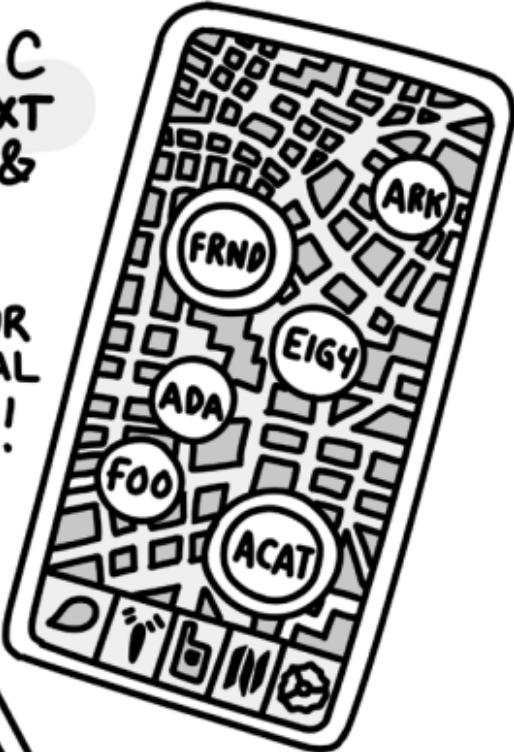
WANT TO TEXT  
ON A NETWORK  
WE BUILD TOGETHER?

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, ADJUST THE CHANNEL SETTINGS



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

BOTOMLINE

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

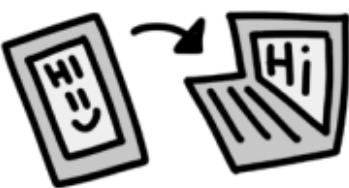
# WHAT'S A MESH NETWORK?

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

RADIO IS  
ETERNAL

USING  
LOW-POWER  
LONG-RANGE  
RADIO WAVES

CAN USE  
SOLAR

100 KM  
+

EVERYONE  
NEEDS A  
POCKET-SIZED  
DEVICE

THAT CAN BE  
USED WITH OR  
WITHOUT A  
PHONE

TO SEND,  
RECEIVE &  
PASS ON  
MESSAGES

# MESH MESSAGES

★ EVERYONE ON THE MESH  
HELPS PASS MESSAGES ON ★



## HOW FAR

IT DEPENDS! RADIO  
BLOCKED BY HILLS, BU-



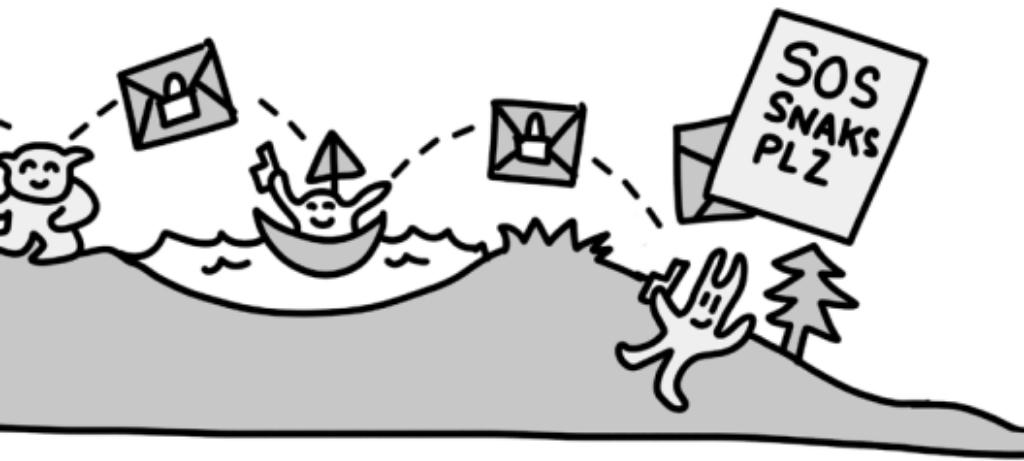
7 URBAN  
0.5 - 2 KM  
DENSE CITY



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

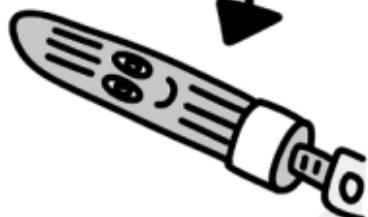


ELEVATION  
100+KM  
MOUNTAINTOPS 8

# WHAT'S INSIDE

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

**ANTENNA:** MAKES RADIO WAVES GO THE DISTANCE



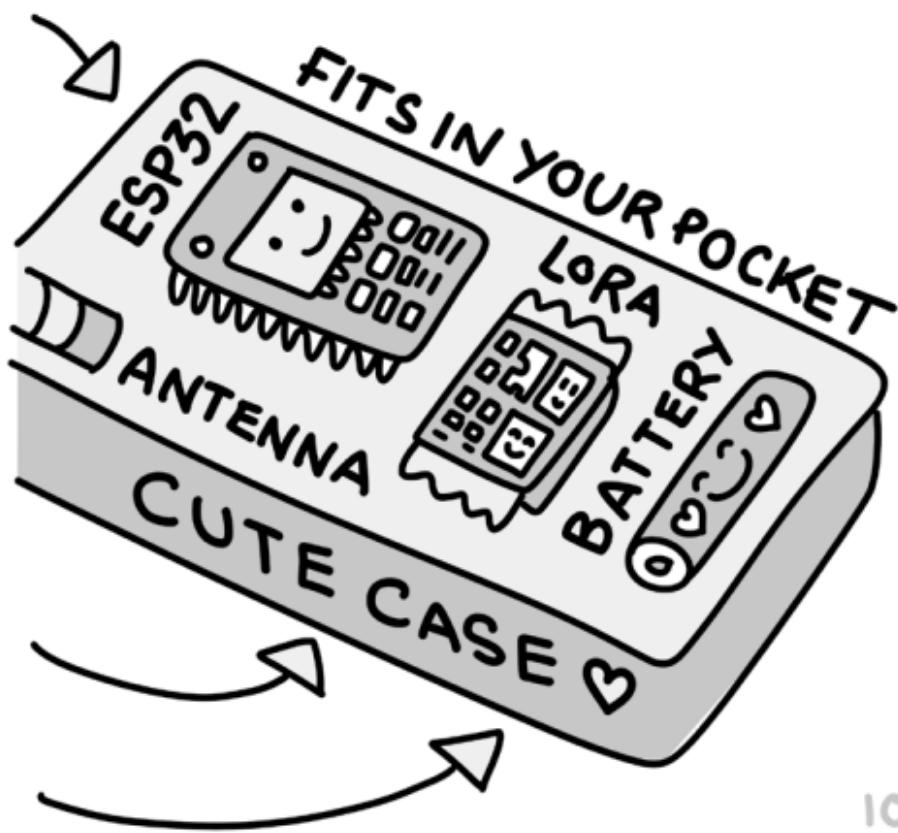
**RADIO:** SPECIAL LONG RANGE RADIO SENDS THE MESSAGES THROUGH THE AIR

**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



ELECROW THINKNODE M1  
BUILT-IN SCREEN  
\$73 CAD



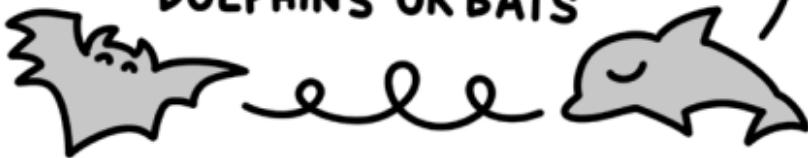
RAK WISMESH TAG  
\$55 CAD

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!



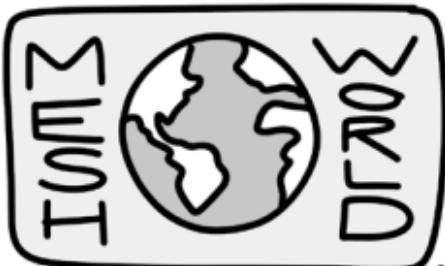
## MESHTASTIC REGIONS

- ➡ 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?



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AND NEIGHBOURS  
WITHOUT NEEDING  
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WITH PRIVACY AND  
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