

# MESH NETWORKS

*meshtastic*



WANT TO TEXT FRIENDS  
ON A NETWORK WE BUILD  
AND OWN TOGETHER?

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# WHY MESH?

BIG CORPORATIONS CONTROL THE  
CELL TOWERS & INTERNET SERVERS.  
THEY CONTROL OUR COMMUNICATION

THEY CAN  
SHUT IT  
ALL OFF



THEY CAN  
CHARGE US  
BIG MONEY



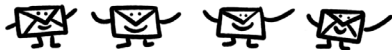
WHEN IT  
BREAKS,  
WE WAIT



REMEMBER THE FUN OF TALKING  
WITH TIN CANS & STRING?



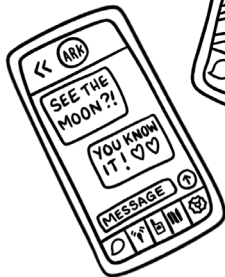
WHAT IF WE COULD DO IT AGAIN  
BUT FOR TEXTING OUR FRIENDS?



# WHAT IS MESHTASTIC?

MESHTASTIC  
IS A WAY TO TEXT  
LOCAL FRIENDS AND  
NEIGHBOURS

NO WIFI OR  
CELL SIGNAL  
NEEDED!



YOU JUST NEED  
A SPECIAL RADIO!

JOIN THE RESISTANCE!  
FUN & FRIENDS ARE HERE

# WHAT'S THE



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



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



**DECENTRALIZED**  
& ENCRYPTED MEANS  
ANYONE CAN SEND ANY  
MSGs, 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 SETTINGS.



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

**BOTTOM LINE**

MESHTASTIC IS FOR LOCAL TEXTING, INTERNET SHUTDOWNS, DISASTERS & ESCAPING 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 MESHTASTIC MESH?

RUN BY  
US

AN OPEN-SOURCE  
MESH NETWORK

BELONGS  
TO US!

TEXT  
ONLY

FOR SENDING  
ENCRYPTED  
TEXT MESSAGES

PRIVATE  
ISH

ETERNAL  
MAGIC

USING  
LOW-POWER  
LONG-RANGE  
RADIO WAVES

CAN USE  
SOLAR

100 KM  
MAX

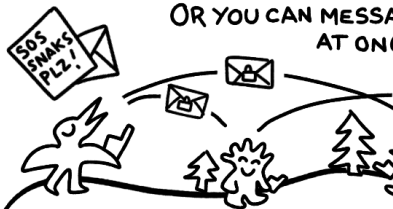
YOU'LL NEED A  
POCKET-SIZED  
DEVICE

USE THE APP &  
YOUR PHONE OR  
THE DEVICE ALONE

MESHTASTIC IS JUST ONE WAY  
OF SENDING MESSAGES OVER A MESH

# HOW MESSY

A MESSAGE CAN HOP  
TO PRIVATELY RE  
OR YOU CAN MESSA  
AT ON



# HOW FAR

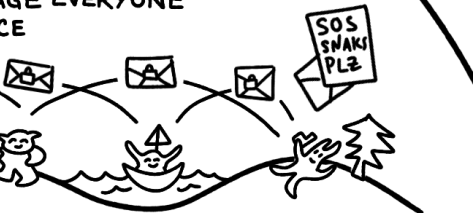
THE DISTANCE OF A  
THE BARRIERS, R  
BLOCKED BY BUILD





# PAGES 'HOP'

UP TO 5 TIMES  
TEACH A FRIEND  
TEACH EVERYONE  
EACH



# IS A HOP?

A HOP DEPENDS ON  
RADIO WAVES GET  
THINGS AND TREES



RURAL/OPEN  
5-15 KM  
FIELDS, TREES



ELEVATION  
100+ KM  
MOUNTAINTOPS

# 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

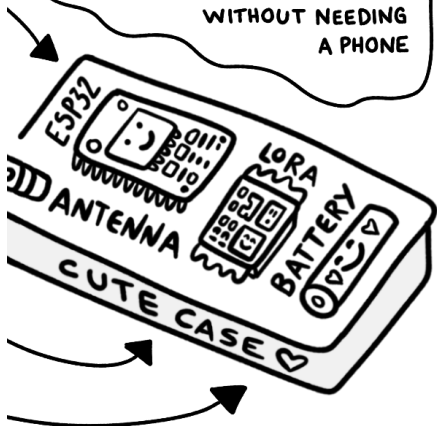
**POWER** A SMALL  
BATTERY KEEPS IT GOING  
FOR DAYS OR WEEKS  
(USB OR SOLAR-POWERED)



# A DEVICE (NODE)?

CONNECT TO YOUR DEVICE USING  
THE MESHTASTIC APP ON YOUR PHONE

OR ADD A KEYBOARD & SCREEN TO  
YOUR DEVICE TO SEND MESSAGES  
WITHOUT NEEDING  
A PHONE



# HOW TO GET ON THE MESH

- ① BUY OR BUILD A LORA DEVICE
- ② ADD THE FIRMWARE: DOWNLOAD IT AT MESHTASTIC.ORG
- ③ GET THE APP: ANDROID, IPHONE, OR WEB AT MESHTASTIC.ORG/APP
- ④ CONNECT: TURN ON BLUETOOTH, TAP + IN THE APP, SET YOUR REGION, AND NAME YOUR DEVICE
- ⑤ START MESSAGING: FIND FRIENDS OR WRITE TO NEW PPL!

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

# GET A DEVICE <sup>AKA:</sup> 'NODE'

WANT SOMETHING READY TO USE?



**LILYGO T-DECK PLUS**  
USE THIS ONE WITHOUT A  
PHONE \$110 CAD



**SENSECAP T1000**  
NO SETUP! \$55 CAD

OK WITH DOING SOME SETUP?

(FOR THESE YOU NEED TO GET A  
CASE & BATTERY)



**LILYGO T-BEAM**  
GREAT BATTERY LIFE &  
BUILT-IN GPS \$50 CAD



**HELTEC LORA 32 V3**  
PORTABLE & BATTERY  
EFFICIENT. \$50 CAD

# WHY RADIO?

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



TO SEND DATA  
THROUGH THE AIR.



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



## MESHTASTIC CHANNELS

© EUROPE: 868 MHz

© TURTLE ISLAND/AMERICAS: 915 MHz

© ASIA-PACIFIC: 921-923 MHz

© GLOBAL: 433 MHz



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

IN THE  
FUTURE  
WHAT COULD  
WE MESH?



@OMARIECLAIRE  
MARIEFLANAGAN.COM

SICK OF  
TECH GIANTS  
ALWAYS CREEPING  
ON YOU?

WANT TO TEXT FRIENDS  
ON A NETWORK  
WE RUN TOGETHER?

WANT TO TEXT  
WITHOUT CELL SERVICE  
OR INTERNET?

