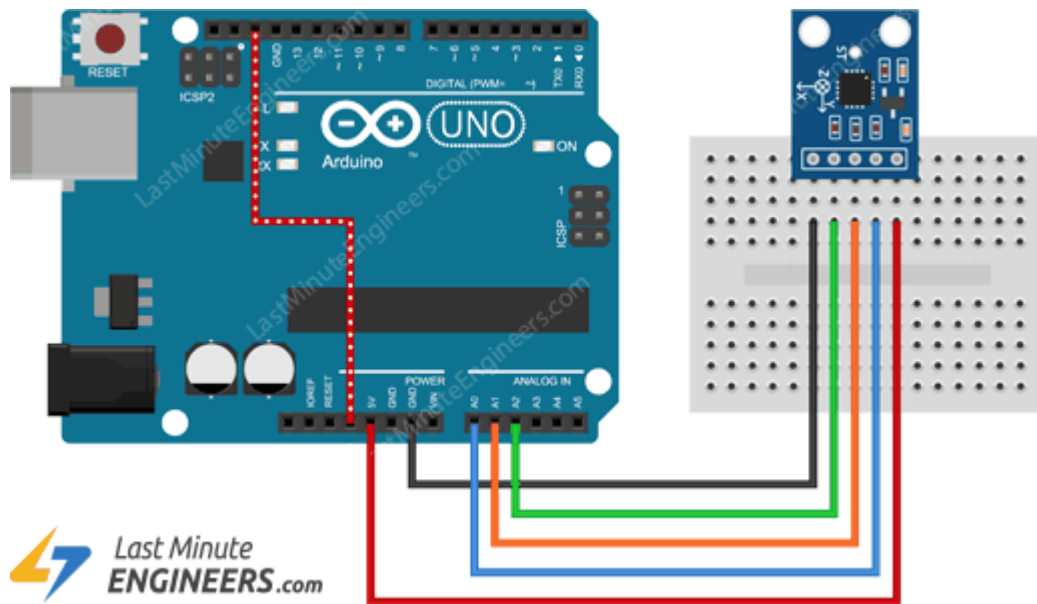# INSTRUCTION

I. Set up the Arduino app
    - Search for Tool-Board-Board manager- Search for (MKR)- install.
    - Connect to the computer via micro USB B cable.
    - Configure the IDE.
    - MUST remove anti-static foam.
    - Select the board: Tool-Board-Board manager- Arduino MKR WAN 1300.
    - Instal the MKRWAN library: Sketch- include library- Manage library- Search MKRWAN- install the first one.
    - To check it connect or not: the port must show COMP Arduino MKR WAN 1300.
    - To check it working or not: File-examples- 01.Basic-Blink-Upload- if the yellow light in the Arduino blink which mean it work.
    - Need to update the firmware first by: File- Examples- MKRWAN- MKRWANFWupdate_standalone.
    - To connect to TTN need to know EUI number from the device.
    - To find this number: File- Examples- MKRWAN- First configuration- Tool- Serial monitor- Upload Program - Find the EUI number.
II. Connecting data to TTN (The thing network)
    - https://console.cloud.thethings.network/
    - https://docs.arduino.cc/tutorials/mkr-wan-1300/the-things-network
    - Create account in TTN and create application and set up all information-Register end device.
    - In Input method choose the LoRaWAN Device Repository.
    - In End device brand- Choose "Arduino SA"- Model choose " Arduino MKRWAN 1310"(this is the same with 1300)-Hardware choose "1.0"- Firmware choose "1.2.3" (to check correctly what is the version, check device version in the output when you load the first configuration)- Region choose "AU_915_928".
    - In Frequency plan choose "Australia 915-928MHz, FSB 2 (Used for TTN).
    - In JoinEUI fill in EUI number-DevEUI and App key, click on generate.
    - Click Register end device.
    - Do the same with the second once.
    - Connecting data to TTN (The thing network)

III.   Connect ADXL 335 to the MRKWAN 1300

- Connect X with A0
- Connect Y with A1
- Connect Z with A2

IV.   Code for sender and receiver
- Instal the library: Sketch- include library- Manage library- Search LoRa- install the Lora by Sandeep Mistry.
- The code of Sender reference by: : File- Examples- LoRa-Lora sender
- The code of Receiver reference by: : File- Examples- LoRa-Lora receiver.
- This code is created by ChatGPT
- One reminder: that the data from ChatGPT is before 2022 therefore some code have to be modified relate to uppercase or lowercase
- After finish upload the code, need to open serial monitor to see the data both from sender and receiver: Tool-serial monitor.