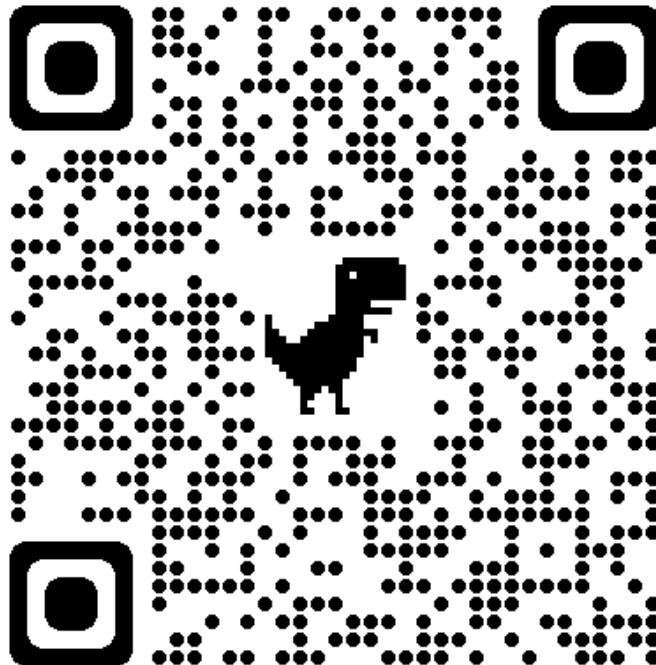


Geomagnetic Excursion Instructions

Phase 1: Connect to router & download experiment

1. Switch off mobile data and connect to the Wi-Fi network '**geophyphox**'
 - a. Password: **abcd5678***.
 - b. Make sure **Bluetooth** and **location** is **turned on** and given access to Phyphox app.
2. Scan the QR code (Figure 1a) and open the link with your browser to open the webpage that looks like in Figure 1b



2 QR-code for web-interface

Operate
Experiments
Show Map
Upload Dataset
Show data

2 Web-interface screenshot

3. Download experiment file by navigating to “Experiments” and pressing download (see Figure 3)

Operate

Experiments

Show Map

Upload Dataset

Show data

Download Your Experiment

[Geomagnetics BLE.phyphox](#)

3 Downloading experiment-file

Phase 2: Recording Data

Before you start measuring, please read the instruction-box below!

How to measure:

- *Place magnetometer on ground facing north (heading between 350°-10°)*
- *After pressing start, your phone will measure until 70 magnetic values were measured*
- *You can stop any time before*
- *Current measurement can be reset in control tab (see Figure 7)*

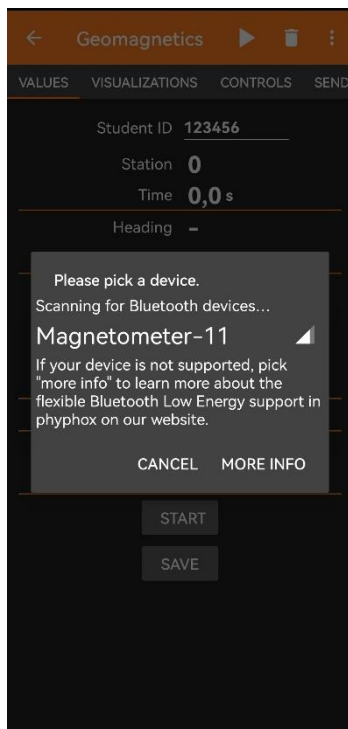
GPS

- *Your phone needs some time to get a GPS position*
- *-> let the experiment run for minimum 30s before you start the first measurement*

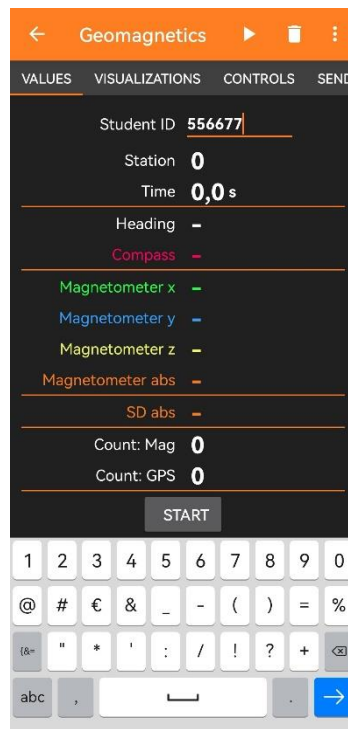
1. Open the “Geomagnetics” experiment
2. Connect to Magnetometer (*Figure 4*)
3. **Enter your student id and press enter (important!) (*Figure 5*)**
 - a. you can close keyboard by tapping anywhere on the screen
4. Start experiment by pressing with the *Play* button (top right)
5. Reference Station (*Figure 6*)
 - a. First measurement should be your reference station measurement)
 - b. Be sure your phone receives enough GPS positions
 - c. Save your measurement by pressing the *Save* button
 - d. Come back to reference station periodically
6. Measurement (*Figure 6*)
 - a. Place magnetometer in position
 - b. Press *Start* button
 - c. After completion press *Save* button
 - d. Move to next position and repeat

Phase 3: Send Data

7. Send Data (*Figure 8*)
 - a. Make sure the experiment is still running and you are connected to geophyphox-router (see Step 1)
 - b. Mobile Data should be switched off
 - c. Switch to *Send Data* tab
 - d. Press the *Export* button **multiple times** to ensure all data has been sent



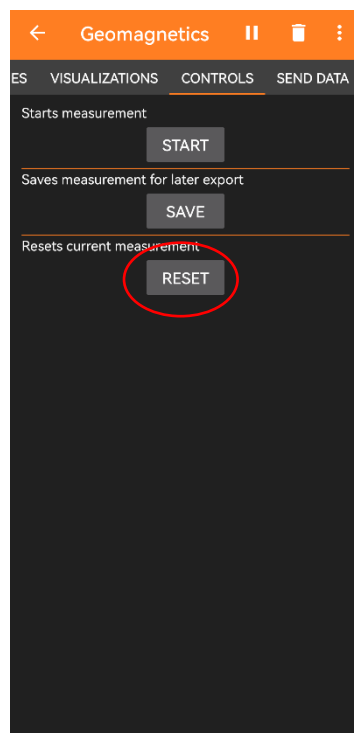
4 Connecting to Magnetometer



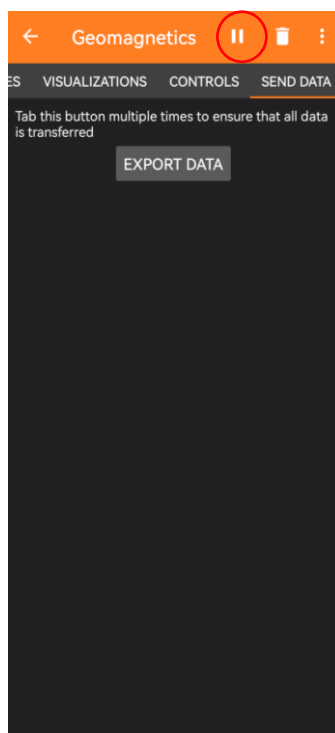
5 Entering student id



6 Measurement



7 Reset current measurement in control tab



8 Sending Data (make sure experiment is running)