

Standard operating protocol

Installing a RAPID monitor in a participant's home

Before leaving for the participant's home:

1. Check that you have all required components, and that they are all labelled for the same RAPID. Each RAPID should have:
 - a. A Dylos DC1700 (ABDN labelling)
 - b. A Raspberry Pi (labelled on reverse)
 - c. A MiFi or dongle (labelled on reverse)
 - d. A USB-microUSB cable for the MiFi (unlabelled)
 - e. A microUSB power cable with EU plug for the RPi (unlabelled)
 - f. A USB-serial cable to connect the RPi to the Dylos (unlabelled)
 - g. A Dylos power cable (unlabelled)
 - h. Some tape to secure the USB-serial cable to the Dylos (optional)
2. Print or retrieve consent forms and questionnaires. Check you have a pen.
3. Prepare a ruaraidhdobson.pythonanywhere.com link to let you check that the monitor is working. Save this on your phone (as an email or similar).
 - a. This should be of the form
https://ruaraidhdobson.pythonanywhere.com/html/MONITOR_ID_HERE/10/?api-key=727ed05f610be2cad5645262bb8604863dc12646ed70cd24a760d746144edea2

In the participant's home:

4. Introduce yourself and give a brief explanation of the study. Ask if the participant is willing to take part. If they are, give them the consent form to fill out, and then date and sign it.
5. Explain that you need to install the monitor somewhere in the main living area of the home.
 - a. Find a suitable site (with two sockets) and put the RAPID together there.
 - b. Power on the MiFi first, then the Dylos, then the Raspberry Pi, to allow the Pi to connect properly to both other devices.
 - c. Leave the monitor to initialise.
6. Explain the baseline questionnaire and ask the participant to complete it. Collect the questionnaire and the consent form.
7. Using your phone, check that the monitor is sending data to the PythonAnywhere site correctly.
 - a. You can do this by navigating to
https://ruaraidhdobson.pythonanywhere.com/html/MONITOR_ID_HERE/10/?api-key=727ed05f610be2cad5645262bb8604863dc12646ed70cd24a760d746144edea2
 to check the last ten minutes of data sent to the server
 - b. If it is not, check the connection between the Raspberry Pi and the Dylos, and then remove the power lead from the Raspberry Pi, replacing it ten seconds later.
 - c. Check that the Raspberry Pi's LEDs are on when power is being supplied.
 - d. If five minutes have gone by with no data being received, power off and unplug all components and wait for a minute before reassembling them. Try again to access data from the RAPID. If you still can't, there may be a problem with the device or with the MiFi. If possible in the setting, you can contact Ruairaidh Dobson on +447803 406 343 or at ruaraidh.dobson@abdn.ac.uk. You may need to arrange a new installation time with the participant and return the monitor to your institution for inspection.

8. Confirm your retrieval date and time, and ensure that the participant has your contact details.