What is the pressure pad for?

The pressure pad is a finger position and finger pressure indicator when a person is using their phone, allowing for recording and later visualization. The pressure pad is attached to the back of the phone, allowing the user to use their phone like normal. This is a part of our ongoing research.

How to make a pressure pad?

The touchpad consists of two leather sheets with pasted rows of thin conductive copper foil on one sheet, pasted columns of foil on the other sheet, and a separating sheet of velostat between the two. The rows and columns of foil are each connected to separate multiplexers.

Here is the basic circuit diagram for the pressure pad assuming that there are 14 rows and 7 columns.

After you are done constructing the pressure pad and circuit upload the script to the Arduino. You can find it in our Github repository inside the folder `Pressure Pad`.
How is this connected to the phone?

The arduino is connected to the phone via a USB C cable. All of the pressure data is captured live by the phone app via serial communication, and then it is transmitted to the Researcher via UDP protocol along with the rest of the session data.

When the pressure pad is in action it should look something like this.