

Simple user manual for ErgoArmMeter (Android)

ErgoArmMeter is a smartphone application for measuring arm elevation during work. It is shown by research that work with elevated arm may lead to shoulder/neck disorders. With ErgoArmMeter, it is possible to measure arm elevation during work easily and with low cost.

To start with, attach the phone using a sport armband on the upper arm, with the upper edge just below the deltoid muscle (see Figure 1):

- 1. Start a measurement by clicking "+", fill in a project name and a recording number and "**Create**" the trial.
- Calibration: let the subject lean to the measuring side, holding some weight in hand (e.g. a 2 kg dumbbell or similar) with a straight-arm (see Figure 2). Click "Calibrate", keep the posture for 2 seconds.
- 3. Click "**Start**" to start the measurement. The time is shown, and the arm elevation angle is recorded.
- 4. Press "**Stop**" to end the measurement and view the results.
- 5. Click "**Share**" to save the detailed measurement results as a csv file. Then you will be able to share the file, named as "date-time-project-number.csv" in your phone's local storage by email.



Figure 1. The phone's position on the arm.



Figure 2. Calibrating posture.

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