Collecting Photos

Requirements for the photographed people

- Photographed people should wear tight-fitting clothes (e. g. yoga pants, fitted tank top/T-shirt) and be barefoot;
- Long hair should be put up and kept off the neck so it does not obscure or touch the neck of the person, especially in the side view.

Photoshoot setup

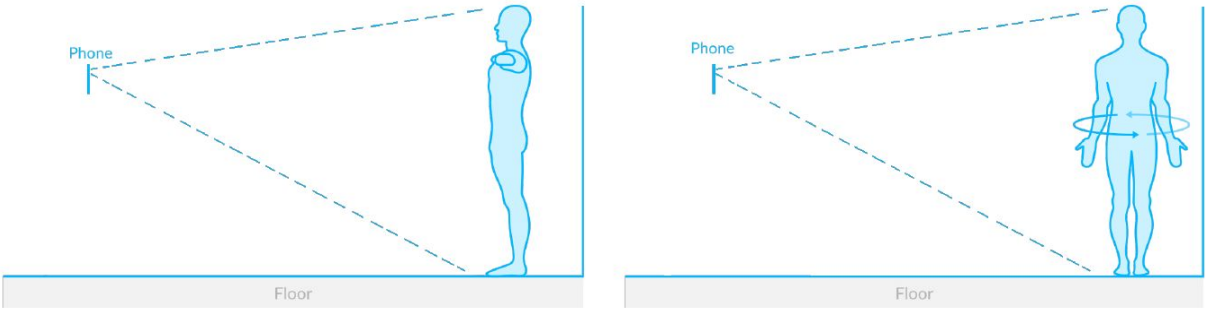
The photos of people should be taken from the smartphone camera in a brightly lit room in front of the wall/backdrop screen:

- The wall/screen should be of one color, uncluttered, contrasting to the person's clothes and skin color;
- Distance from the camera to the person - **4-5m** (so the camera captures the full height of the person);
- Distance from the person to the wall/screen - approximately **1m**, so there is no shadow on the wall/screen;
- The smartphone should be positioned vertically and fixed approximately on the **chest level** of the photographed people.

Photoshoot process

Three photos should be made for each person: front view, side view, and the photo of the background without the person. Only one person should be in the frame for front and side photos and no one should be in the frame for a background photo.

1. **Front view.**
   The person should stand facing forward in the center of the frame with the arms outstretched and parallel to the floor; hands in fists and at a slightly lower level than the shoulders; legs hip-width apart, facing straight.
2. **Side view.**
   The person should turn 90 degrees to the left, put their feet together, and lower the hands.
   Note: *The hands should not go beyond the silhouette of the person.*



3. **Background.**
   After posing for the front and the side photos, the person should get out of the frame, so the picture of the background can be taken

Camera requirements

- Minimum of **8 megapixels**;
- Approximate image resolution: **3840x2160 pixels**.

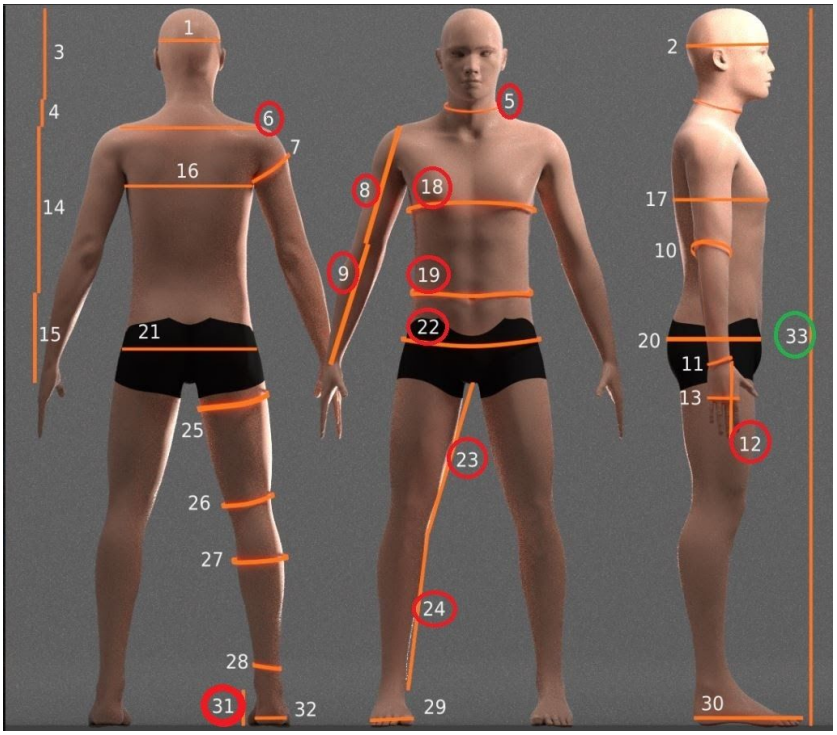
Example of the correct photos (front&side views)

Front view Side view

Note: *unlike this example, the photographed person should be barefoot.*

Taking Physical Measurements

In total, **12 measurements** should be taken manually for each photographed person. These measurements are indicated on the scheme below (circled in red and green both).



Equipment required: flexible measuring tape. When taking measurements, make sure the tape is not too tight or too loose and is lying flat on the skin. The measurements should be taken in meters with two digits after the decimal point

1. **Neck girth, women** (#5 on the scheme)
   ID: `"neck_girth"`
   The person should keep their head up and look straight ahead. Measure the circumference in the midway of the neck.
2. **Shoulders width** (#6 on the scheme)
   ID: `"shoulders_width"`
   The person should stand straight with the shoulders relaxed. Measure the distance between acromion bones (upper tips of the shoulders).
3. **Upper arm length** (#8 on the scheme)
   ID: `"upperarm_length"`
   Measure the distance between acromion bone (upper tip of the shoulders).
   Note: *make this measurement for one hand only.*
4. **Forearm length** (#9 on the scheme)
   ID: `"forearm_length"`
   Measure the distance between elbow and wrist (end of radius bone).
   Note: *make this measurement for the same hand as the previous measurement.*

5. **Palm length** (#12 on the scheme)
   ID: `"hands_length"`
   Measure the distance between the end of the radius bone and the longest finger.
   Note: *make this measurement for the same hand as the previous two measurements.*

6. **Chest girth, women** (#18 on the scheme)
   ID: `"chest_girth"`
   Measure the circumference around the fullest part of the person's chest with the tape passing under the arms.

7. **Waist girth** (#19 on the scheme)
   ID: `"waist_girth"`
   Measure the circumference at the level of the person's navel.

8. **Hips girth** (#22 on the scheme)
   ID: `"buttock_girth"`
   The person should stand straight with their weight evenly distributed on both feet and legs slightly parted, making sure not to tense the gluteal muscles. Measure the circumference at the level of the greatest protrusion of the gluteal (buttock) muscles.

9. **Upper leg length** (#23 on the scheme)
   ID: `"upperleg_length"`
   Measure the distance between the groin and the knee along the inner side of the leg.
   Note: *make this measurement for one leg only.*

10. **Lower leg length** (#24 on the scheme)
    ID: `"lowerleg_length"`
    Measure the distance between the knee and the ankle along the inner side of the leg.
    Note: *make this measurement for the same legs as the previous measurement.*

11. **Foot height** (#31 on the scheme)
    ID: `"feet_height_Z"`
    The person should stand straight without any footwear on. Measure the vertical distance between the person's ankle and the floor.
    Note: *make this measurement for the same leg as the previous two measurements.*

12. **Height** (#33 on the scheme)
    ID: `"body_height_Z"`
    Measure the height of the person.

File Naming Guide

Each photographed person should be assigned a unique ID number (e. g. 1, 2, 3, and so on) and the data collected for this person should be stored in the folder named with this number. Each folder should contain three JPG photos and a JSON file with the measurements:

- Front picture: "`1-1r.jpg`"
- Side picture: "`2-1r.jpg`"
- Background picture: "`bg-1r.jpg`"
- Manual measurements: "`measurements.json`"

This is an example of the "`measurements.json`" file (all measurements are indicated in meters with two digits after the decimal point):

```
{
  "measures": {
    "body_height_Z": 1.79,
    "buttock_girth": 1.07,
    "chest_girth": 1.08,
    "feet_height_Z": 0.07,
    "forearm_length": 0.28,
    "hands_length": 0.19,
      "lowerleg_length": 0.43,
      "neck_girth": 0.42,
      "shoulders_width": 0.35,
      "upperarm_length": 0.28,
    "upperleg_length": 0.38,
    "waist_girth": 0.97
  }
}
```

It is extremely important that all corresponding photos (e. g. all front side photos) **have the same file names within different folders and all JSON files have the same exact structure.**