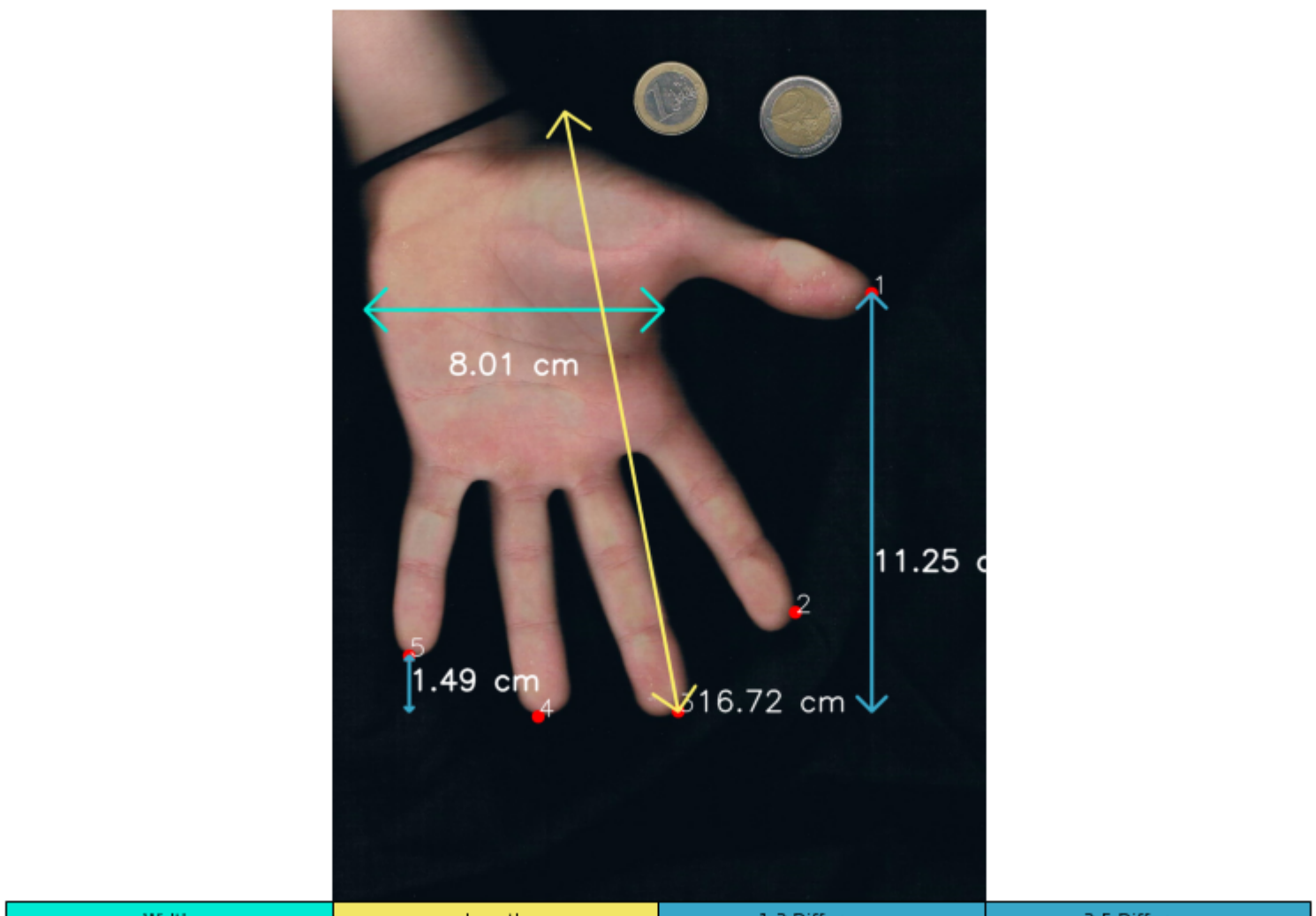
In [1]:
```
from CVIP_Main_assignment import Hand_measurement
import os
import matplotlib.pyplot as plt
import pandas as pd
```

Single Image Usage

In [2]:
```
hand = Hand_measurement("handscans/Image (13).jpg", "left",19,225)
plt.figure(figsize=(10,10))
hand.plot_table()
```

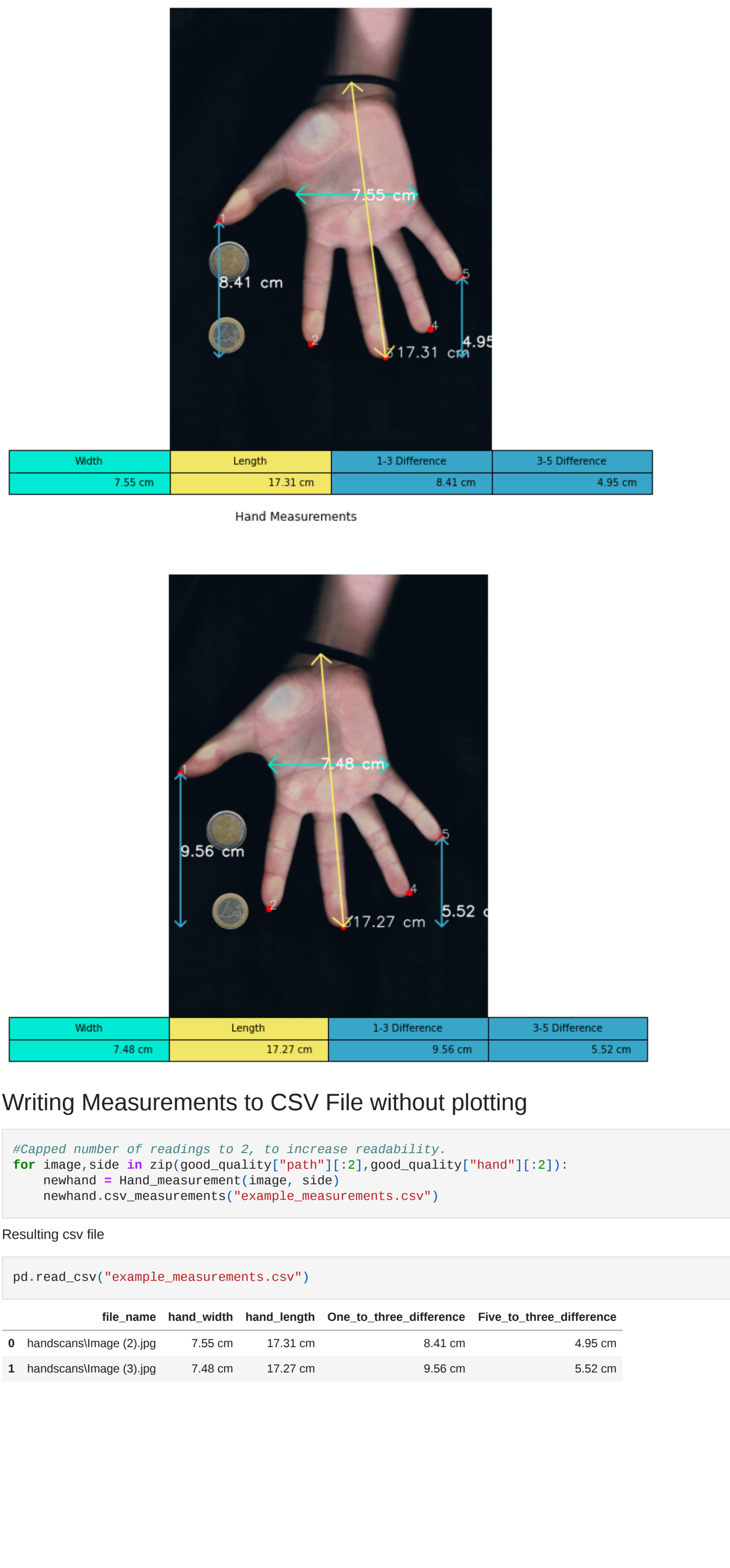


Width	Length	1-3 Difference	3-5 Difference
8.01 cm	16.72 cm	11.25 cm	1.49 cm

Usage with CSV File

In [3]:
```
good_quality=Hand_measurement.quality("handscans/handscans.csv",False)
```

In [4]:
```
#Capped number of readings to 2, to increase readability.
for image,side in zip(good_quality["path"][:2],good_quality["hand"][:2]):
    newhand = Hand_measurement(image, side)
    plt.figure(figsize=(9,9))
    newhand.plot_table()
```



Width	Length	1-3 Difference	3-5 Difference
7.55 cm	17.31 cm	8.41 cm	4.95 cm

Width	Length	1-3 Difference	3-5 Difference
7.48 cm	17.27 cm	9.56 cm	5.52 cm

Writing Measurements to CSV File without plotting

In [5]:
```
#Capped number of readings to 2, to increase readability.
for image,side in zip(good_quality["path"][:2],good_quality["hand"][:2]):
    newhand = Hand_measurement(image, side)
    newhand.csv_measurements("example_measurements.csv")
```

Resulting csv file

In [6]:
```
pd.read_csv("example_measurements.csv")
```

Out[6]:

	file_name	hand_width	hand_length	One_to_three_difference	Five_to_three_difference
0	handscans\Image (2).jpg	7.55 cm	17.31 cm	8.41 cm	4.95 cm
1	handscans\Image (3).jpg	7.48 cm	17.27 cm	9.56 cm	5.52 cm