

Demographic Data

Healthy Volunteers (n = 40)

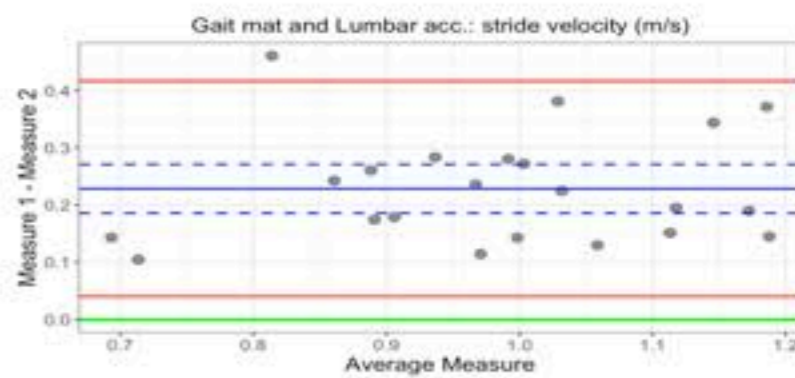
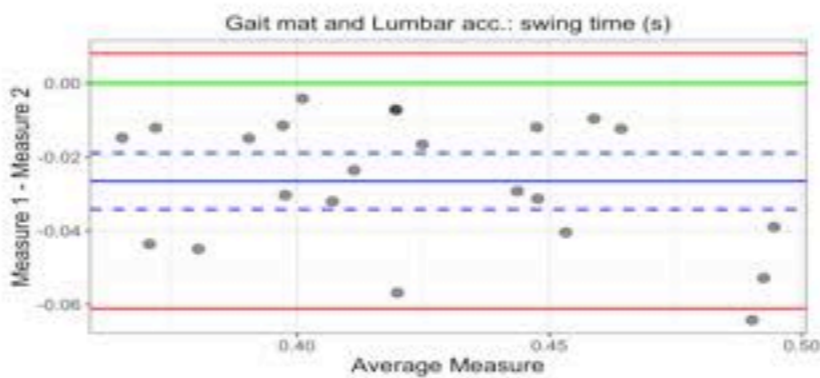
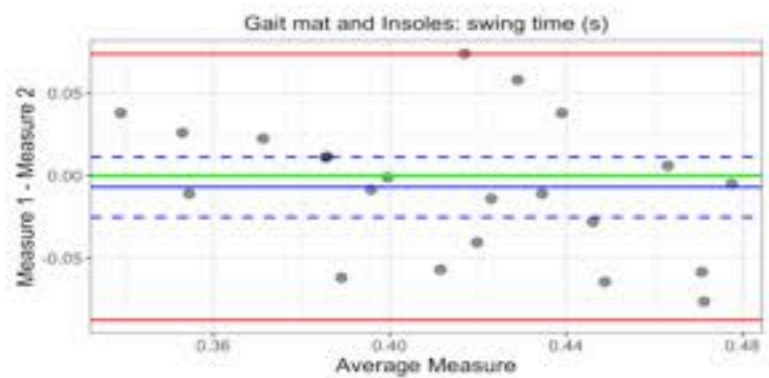
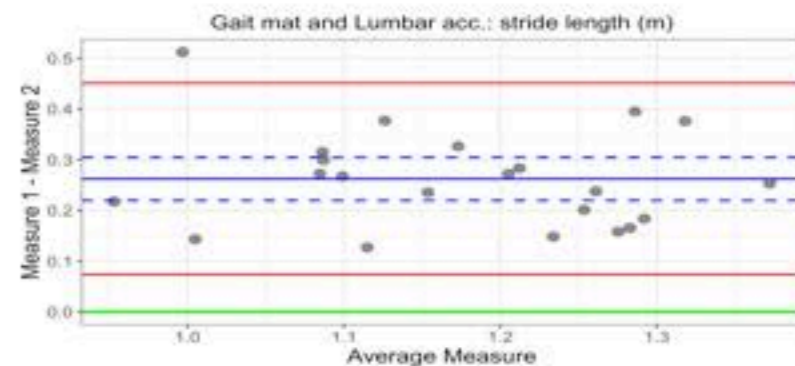
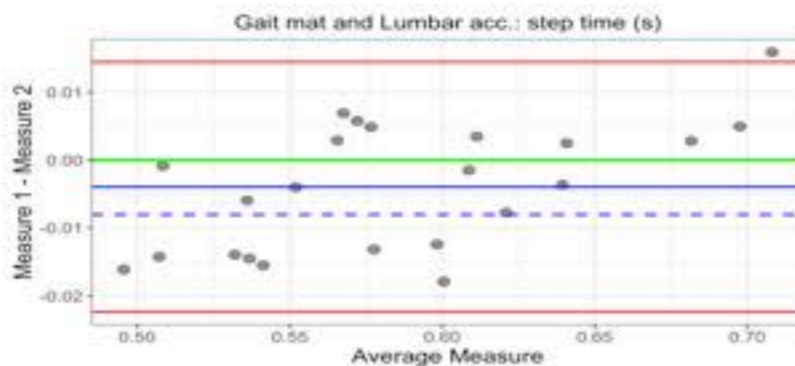
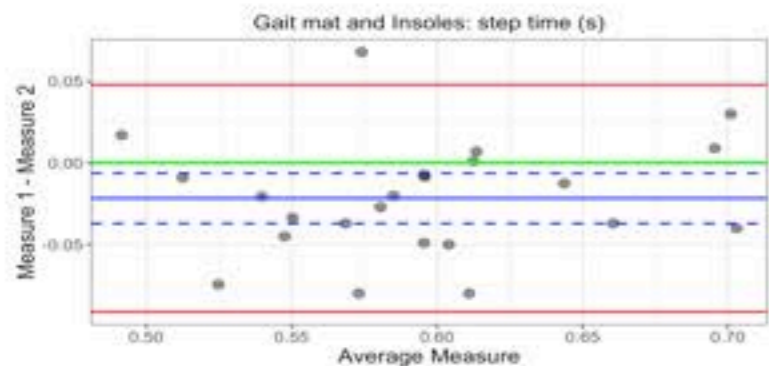
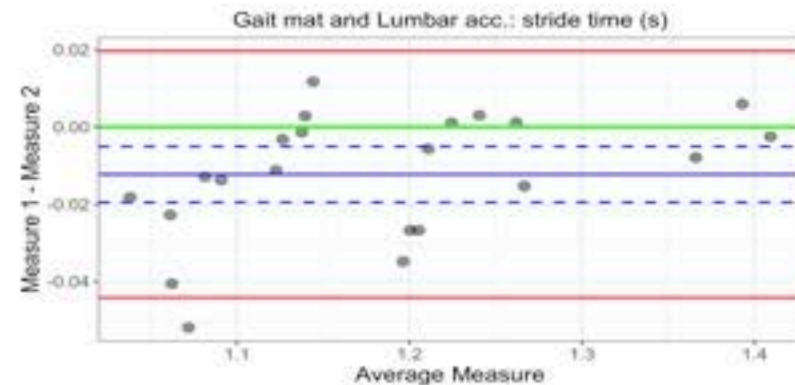
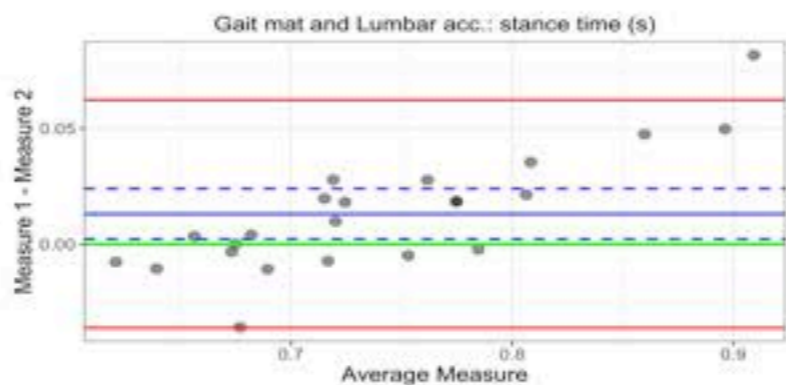
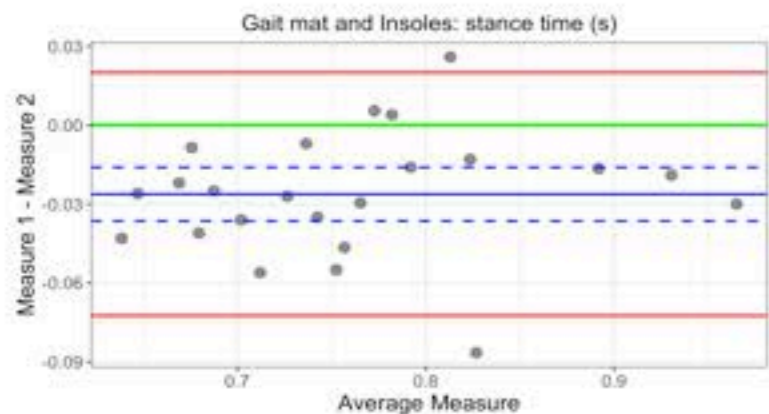
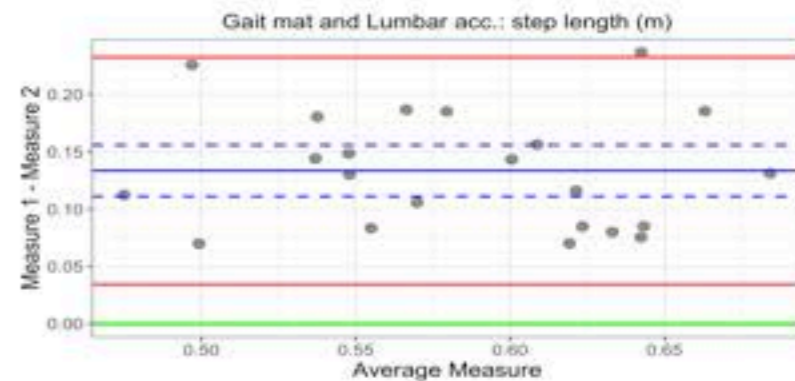
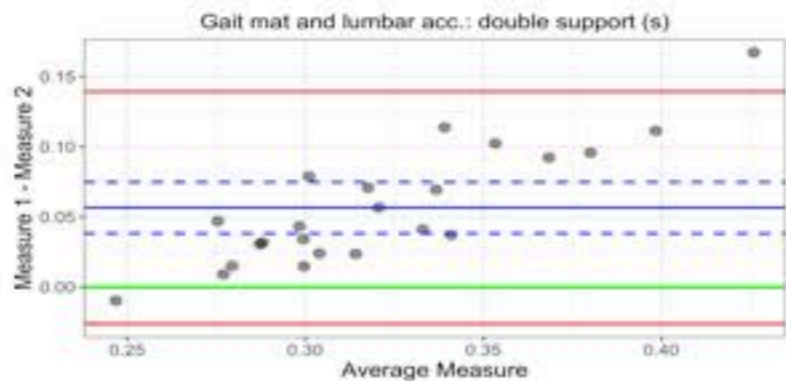
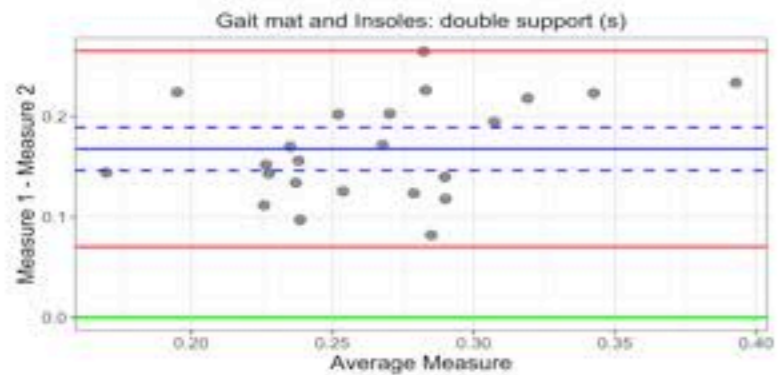
Age , years [min max]	35.51 +/- 10.93 [20 59]
Weight , kg [min max]	70.85 +/- 15.41 [50.35 111.13]
Height , cm [min max]	170.00 +/- 9.14 [152.40 187.96]
BMI , kg/m ² [min max]	24.14 +/- 4.31 [18.79 35.90]
MDPQ , score [min max]	75.63 +/- 4.69 [64 80]
Gender , male/female	19/21
Handedness	
left, right, both	3, 34, 3
Education	
high school, college, post-grad, n/a	2, 11, 26, 1

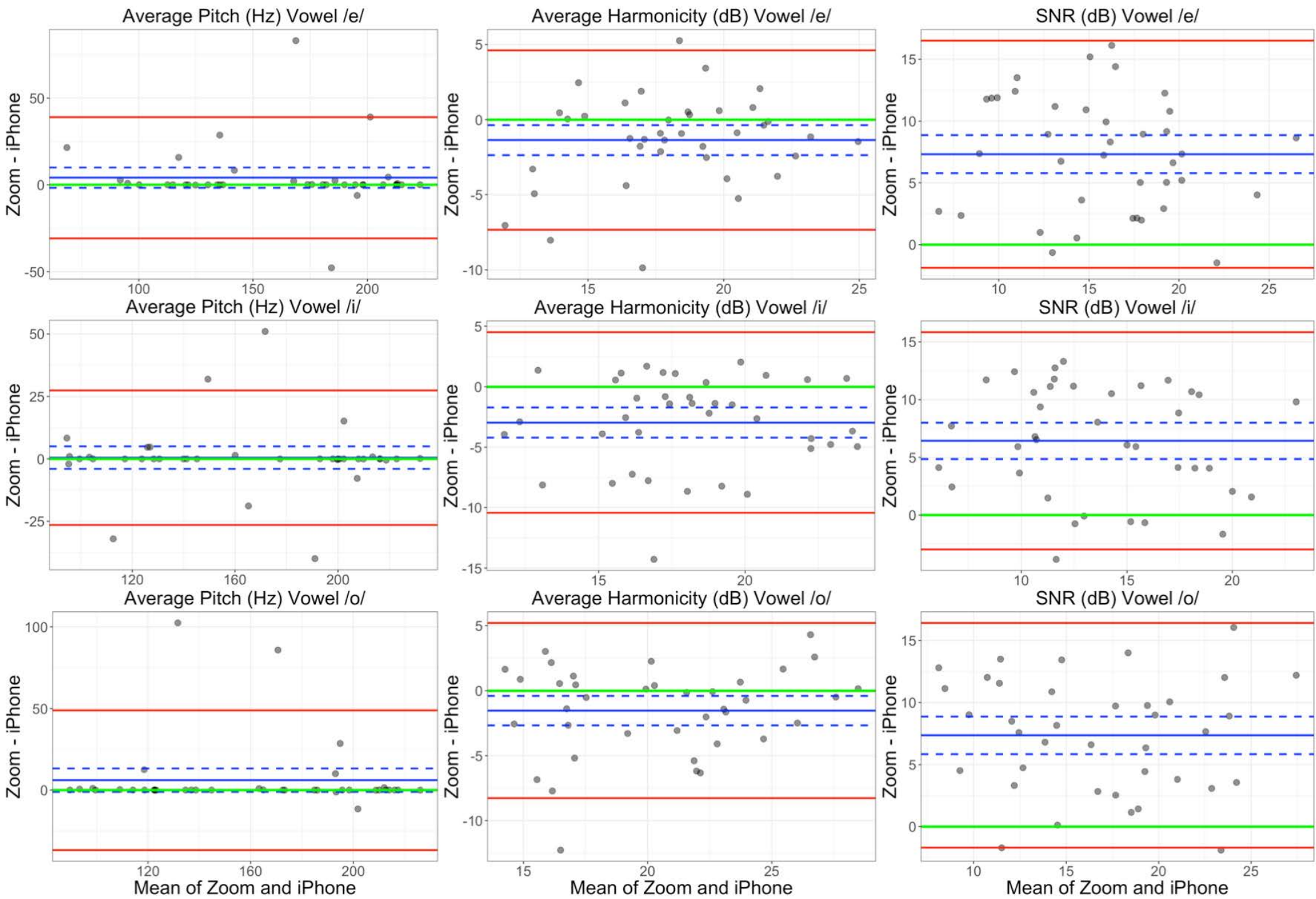
Sensor Layout



Gait Metric Definitions

Gait Metric	Definition
Stride Velocity	Stride length divided by stride time
Stance Time	Time between the initial contact and the final contact of consecutive footfalls on the same foot
Step Length	Distance from the initial contact of current footfall to the initial contact from opposite foot's previous footfall
Stride Length	Distance between two consecutive footfalls from the same foot
Stride Time	Time between initial contacts of two consecutive footfalls from the same foot
Swing Time	Time between the final contact from the current footfall to the initial contact of the next footfall on the same foot
Step Time	Time between initial contact from one foot to the initial contact of the opposite foot
Single Support	The elapsed time while a single foot is in contact with the ground and the opposite foot is in the air
Double Support	Time elapsed while both feet are in contact with ground
Gait Cycle	Time between initial contacts from two consecutive footfalls of the same foot
Initial Contact	Time when a foot first makes contact with floor
Final Contact	Time when a foot last makes contact with floor





Supplemental Figure 1: Demographic data.

Supplemental Figure 2: Wearable device layout.

Supplemental Figure 3: Gait metric definitions.

Supplemental Figure 4: Bland-Altman comparison of insole and lumbar accelerometer gait metrics against gait mat.

Supplemental Figure 5: Bland-Altman comparison of average pitch, harmonicity, and SNR values across sustained vowels between Zoom and iPhone.