Supplementary information:
On electromagnetic head-surface digitization in MEG and EEG

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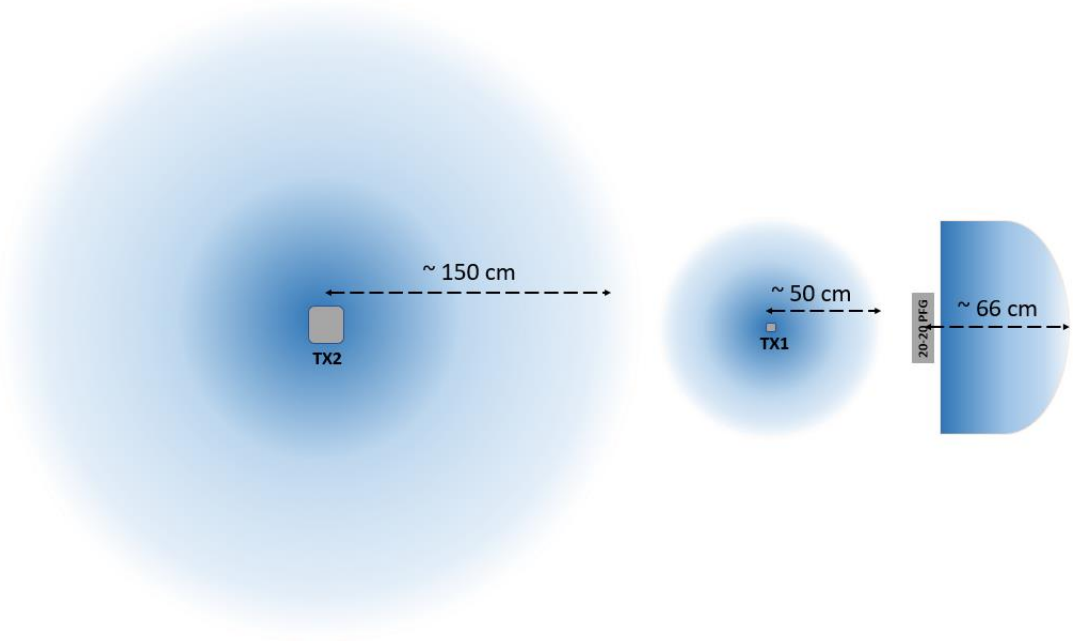


(A)

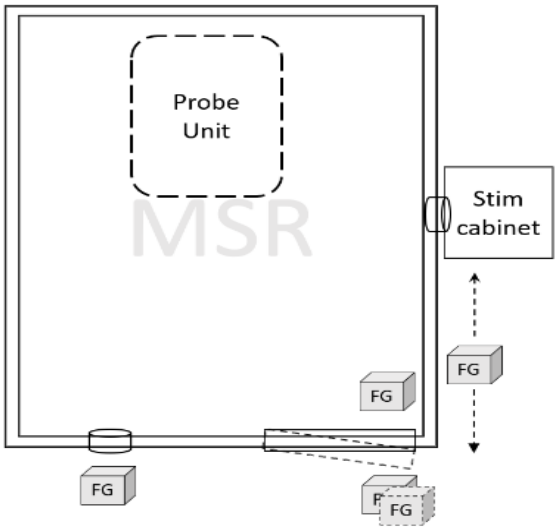
(B)

Figure S1. Field pattern. A) Representation of the measurement volume (VoM) for Fastrak (TX2), Fastrak (TX1), and Aurora 20-20 PFG, B) Megin's digitization chair and Aurora 20-20 PFG fixed to chair's backrest during the tests (top view)

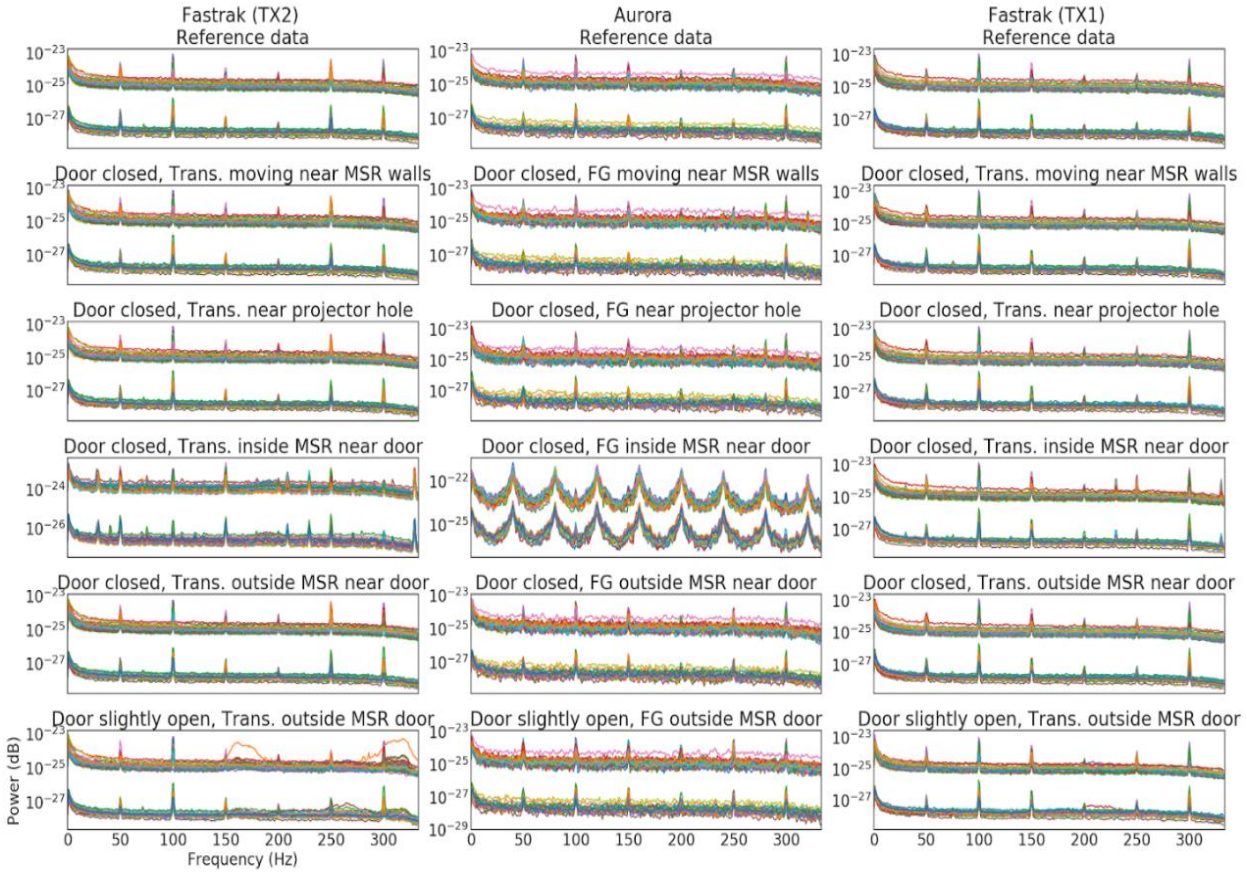
Figure S2. The magnetic objects tested during the fluctuation tests of the EMT systems.

Table S1. Various magnetic objects were tested during the fluctuation tests of the EMT systems.

Test object	Size approx.	Specification
Large copper plate	18 cm x 25 cm	Thin and flexible
Small copper plate	2 cm x 2 cm	Thin and flexible
Copper loop	Ø = 4 cm	Made of 4 mm wide strip
Key set	7 cm	A set of metallic and RFID keys
Jewelry	Ø = 2 cm	Golden ring
Spectacles with metallic frame	14 cm wide	Metal frame
Electronic calculator	16 cm x 8 cm x 2 cm	Switched on
RFID card	9 cm x 5 cm	Door card
ATM card	9 cm x 5 cm	With magnetic strip
Spiral cable	Ø = 6 cm	phone charging cable
Board pin	1 cm	Iron pin
Permanent magnet	Ø = 3 cm	Board magnet
Mobile phone	14 cm x 7 cm x 1 cm	Switch on
Paper clip	3 cm	Made of iron
Bluetooth mouse	10 cm x 5 cm x 3 cm	Switched on
Dental brace's metallic frame	6 cm	Half loop replicating brace frame
Scissors	15 cm	Stainless steel

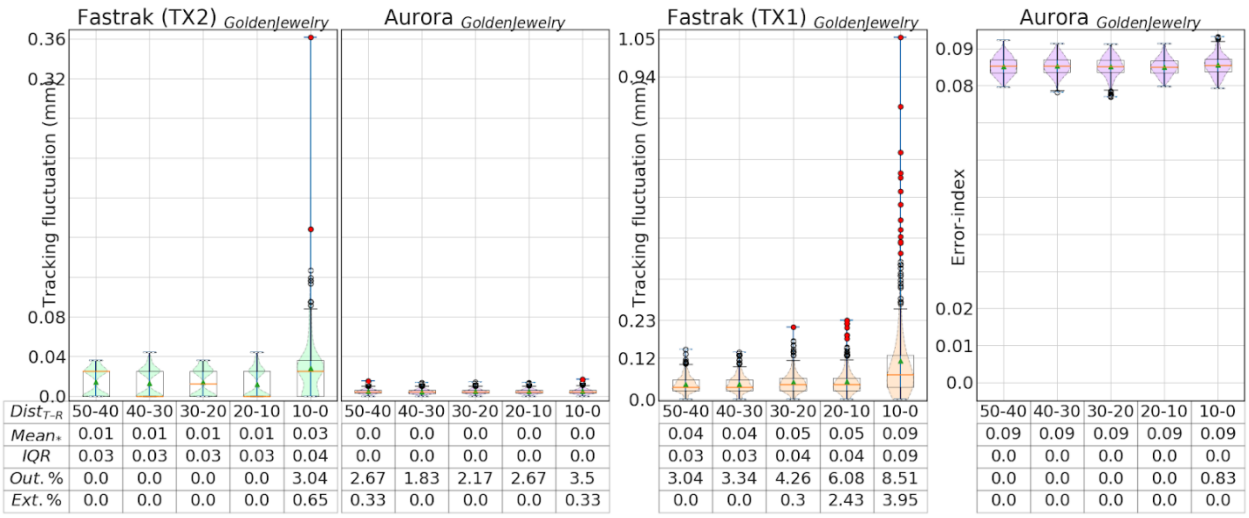


(A)



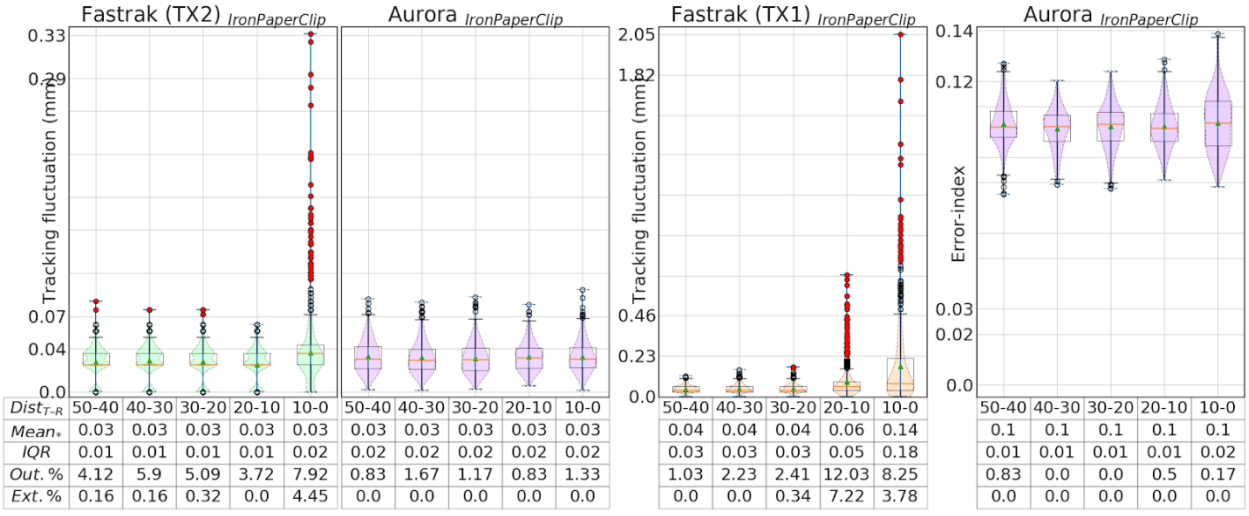
(B)

Figure S3. Illustration of the transmitter/FG artifacts in MEG data (A) Positions of the transmitter/FG, (B) Power spectra of empty room data.



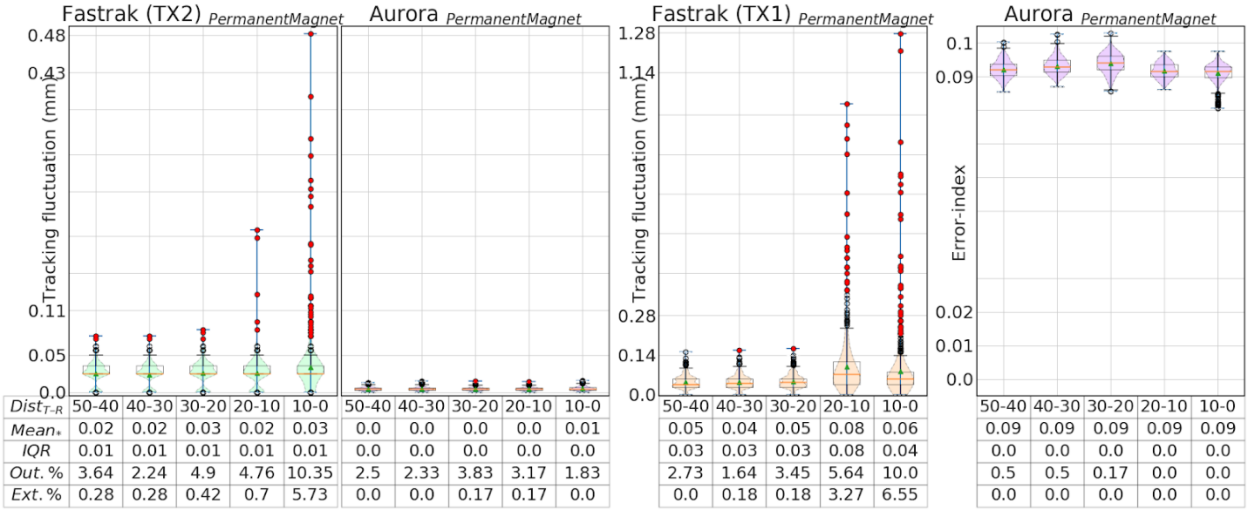
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.01	0.01	0.01	0.01	0.03	0.0	0.0	0.0	0.0	0.0	0.04	0.04	0.05	0.05	0.09	0.09	0.09	0.09	0.09	0.09
IQR	0.03	0.03	0.03	0.03	0.04	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.04	0.04	0.09	0.0	0.0	0.0	0.0	0.0
Out.%	0.0	0.0	0.0	0.0	3.04	2.67	1.83	2.17	2.67	3.5	3.04	3.34	4.26	6.08	8.51	0.0	0.0	0.0	0.0	0.83
Ext.%	0.0	0.0	0.0	0.0	0.65	0.33	0.0	0.0	0.0	0.33	0.0	0.0	0.3	2.43	3.95	0.0	0.0	0.0	0.0	0.0

(A)



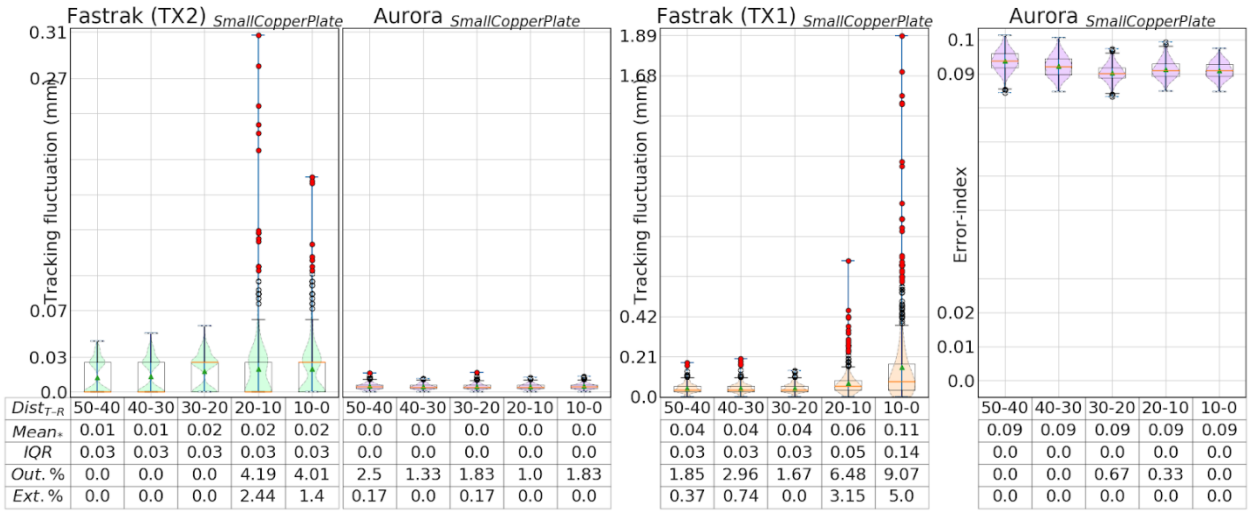
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.06	0.14	0.1	0.1	0.1	0.1	0.1
IQR	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.05	0.18	0.01	0.01	0.01	0.01	0.02
Out.%	4.12	5.9	5.09	3.72	7.92	0.83	1.67	1.17	0.83	1.33	1.03	2.23	2.41	12.03	8.25	0.83	0.0	0.0	0.5	0.17
Ext.%	0.16	0.16	0.32	0.0	4.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.34	7.22	3.78	0.0	0.0	0.0	0.0	0.0

(B)



$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.02	0.02	0.03	0.02	0.03	0.0	0.0	0.0	0.0	0.01	0.05	0.04	0.05	0.08	0.06	0.09	0.09	0.09	0.09	0.09
IQR	0.01	0.01	0.01	0.01	0.01	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.08	0.04	0.0	0.0	0.0	0.0	0.0
Out.%	3.64	2.24	4.9	4.76	10.35	2.5	2.33	3.83	3.17	1.83	2.73	1.64	3.45	5.64	10.0	0.5	0.5	0.17	0.0	0.0
Ext.%	0.28	0.28	0.42	0.7	5.73	0.0	0.0	0.17	0.17	0.0	0.0	0.18	0.18	3.27	6.55	0.0	0.0	0.0	0.0	0.0

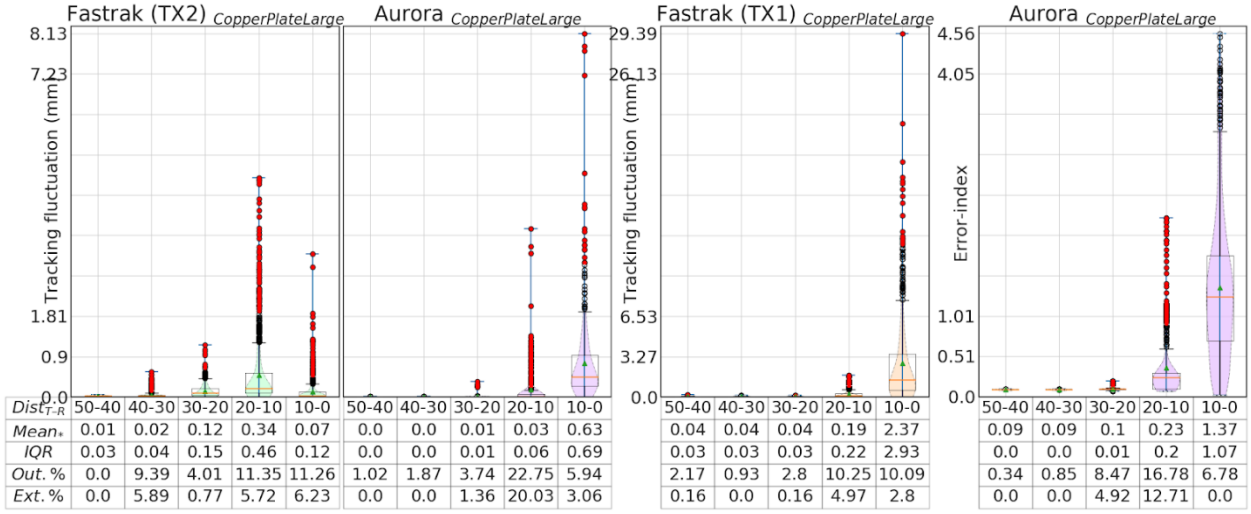
(C)



	Fastrak (TX2) SmallCopperPlate					Aurora SmallCopperPlate				
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.01	0.01	0.02	0.02	0.02	0.0	0.0	0.0	0.0	0.0
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out.%	0.0	0.0	0.0	4.19	4.01	2.5	1.33	1.83	1.0	1.83
Ext.%	0.0	0.0	0.0	2.44	1.4	0.17	0.0	0.17	0.0	0.0

	Fastrak (TX1) SmallCopperPlate					Aurora SmallCopperPlate				
	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
	0.04	0.04	0.04	0.06	0.11	0.09	0.09	0.09	0.09	0.09
	0.03	0.03	0.03	0.05	0.14	0.0	0.0	0.0	0.0	0.0
	1.85	2.96	1.67	6.48	9.07	0.0	0.0	0.67	0.33	0.0
	0.37	0.74	0.0	3.15	5.0	0.0	0.0	0.0	0.0	0.0

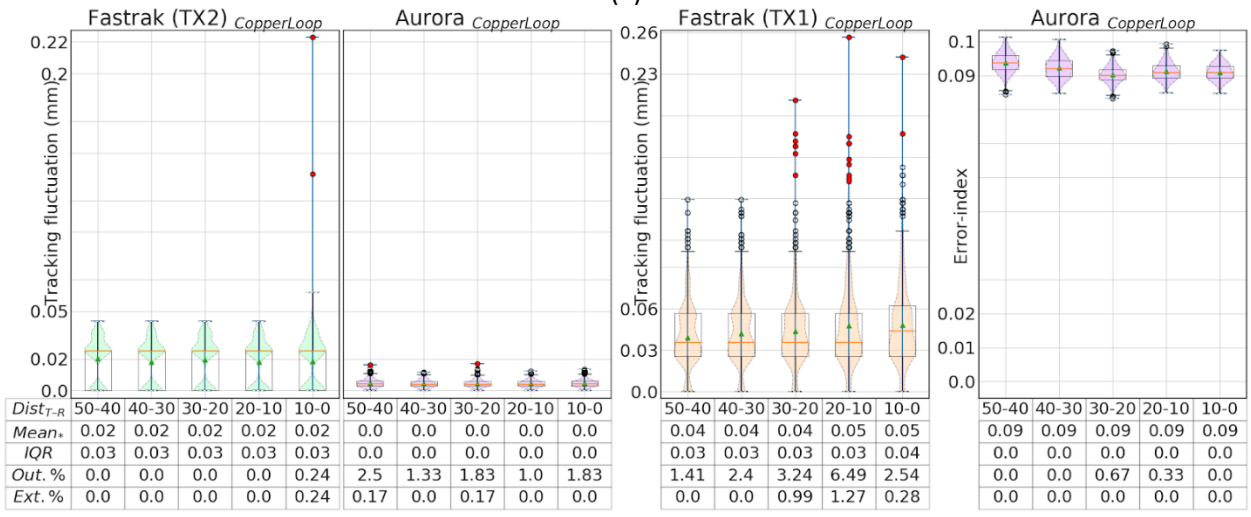
(D)



	Fastrak (TX2) CopperPlateLarge					Aurora CopperPlateLarge				
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.01	0.02	0.12	0.34	0.07	0.0	0.0	0.01	0.03	0.63
IQR	0.03	0.04	0.15	0.46	0.12	0.0	0.0	0.01	0.06	0.69
Out.%	0.0	9.39	4.01	11.35	11.26	1.02	1.87	3.74	22.75	5.94
Ext.%	0.0	5.89	0.77	5.72	6.23	0.0	0.0	1.36	20.03	3.06

	Fastrak (TX1) CopperPlateLarge					Aurora CopperPlateLarge				
	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
	0.04	0.04	0.04	0.19	2.37	0.09	0.09	0.1	0.23	1.37
	0.03	0.03	0.03	0.22	2.93	0.0	0.0	0.01	0.2	1.07
	2.17	0.93	2.8	10.25	10.09	0.34	0.85	8.47	16.78	6.78
	0.16	0.0	0.16	4.97	2.8	0.0	0.0	4.92	12.71	0.0

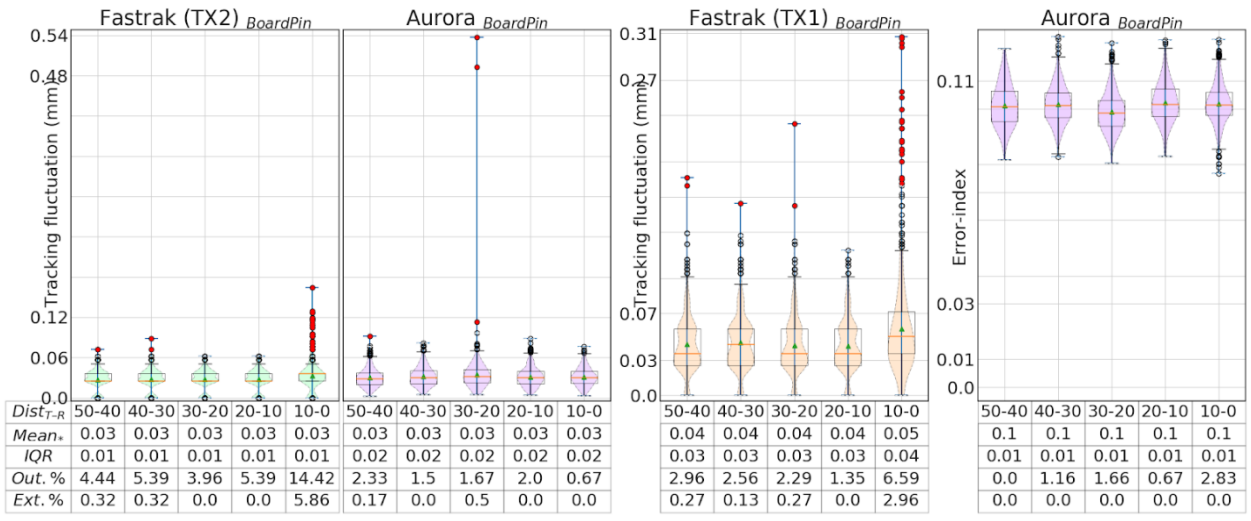
(E)



	Fastrak (TX2) CopperLoop					Aurora CopperLoop				
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.02	0.02	0.02	0.02	0.02	0.0	0.0	0.0	0.0	0.0
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out.%	0.0	0.0	0.0	0.0	0.24	2.5	1.33	1.83	1.0	1.83
Ext.%	0.0	0.0	0.0	0.0	0.24	0.17	0.0	0.17	0.0	0.0

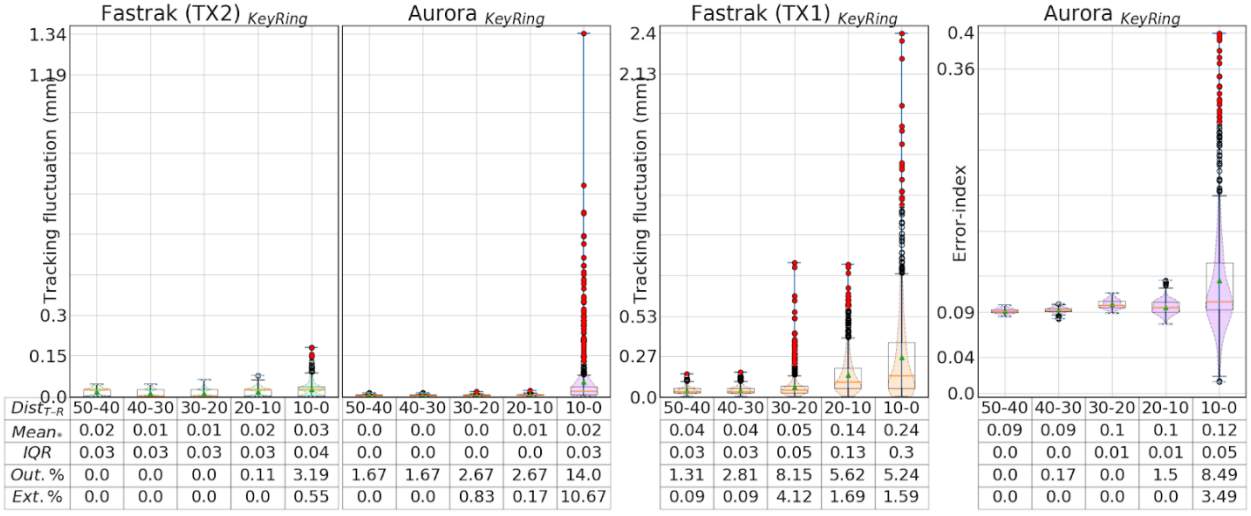
	Fastrak (TX1) CopperLoop					Aurora CopperLoop				
	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
	0.04	0.04	0.04	0.05	0.05	0.09	0.09	0.09	0.09	0.09
	0.03	0.03	0.03	0.03	0.04	0.0	0.0	0.0	0.0	0.0
	1.41	2.4	3.24	6.49	2.54	0.0	0.0	0.67	0.33	0.0
	0.0	0.0	0.99	1.27	0.28	0.0	0.0	0.0	0.0	0.0

(F)



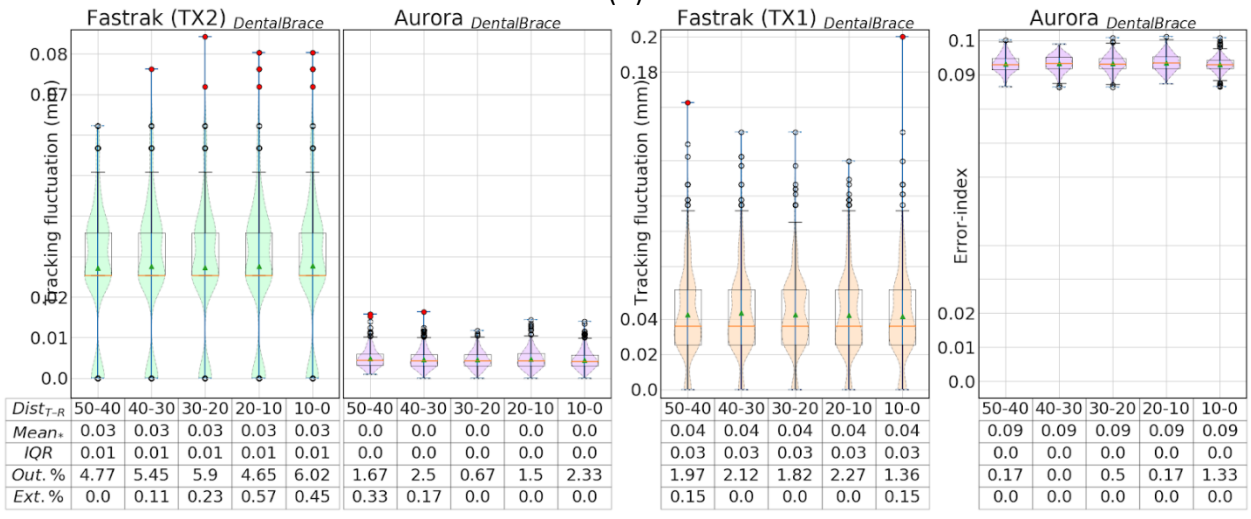
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.1	0.1	0.1	0.1	0.1
IQR	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.01	0.01	0.01	0.01	0.01
Out.%	4.44	5.39	3.96	5.39	14.42	2.33	1.5	1.67	2.0	0.67	2.96	2.56	2.29	1.35	6.59	0.0	1.16	1.66	0.67	2.83
Ext.%	0.32	0.32	0.0	0.0	5.86	0.17	0.0	0.5	0.0	0.0	0.27	0.13	0.27	0.0	2.96	0.0	0.0	0.0	0.0	0.0

(G)



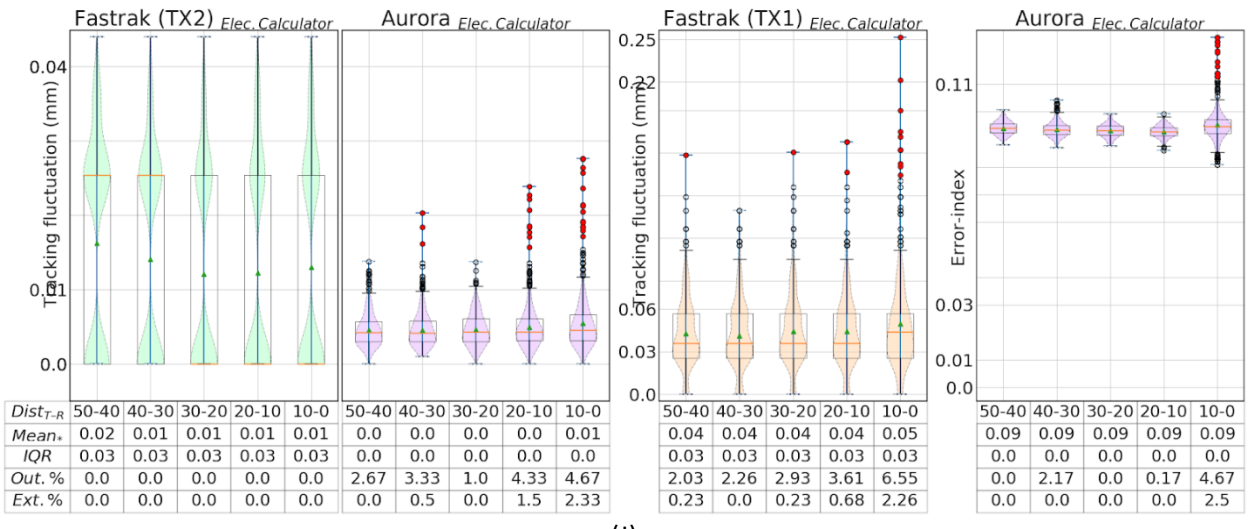
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.02	0.01	0.01	0.02	0.03	0.0	0.0	0.0	0.01	0.02	0.04	0.04	0.05	0.14	0.24	0.09	0.09	0.1	0.1	0.12
IQR	0.03	0.03	0.03	0.03	0.04	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.05	0.13	0.3	0.0	0.0	0.01	0.01	0.05
Out.%	0.0	0.0	0.0	0.11	3.19	1.67	1.67	2.67	2.67	14.0	1.31	2.81	8.15	5.62	5.24	0.0	0.17	0.0	1.5	8.49
Ext.%	0.0	0.0	0.0	0.0	0.55	0.0	0.0	0.83	0.17	10.67	0.09	0.09	4.12	1.69	1.59	0.0	0.0	0.0	0.0	3.49

(H)



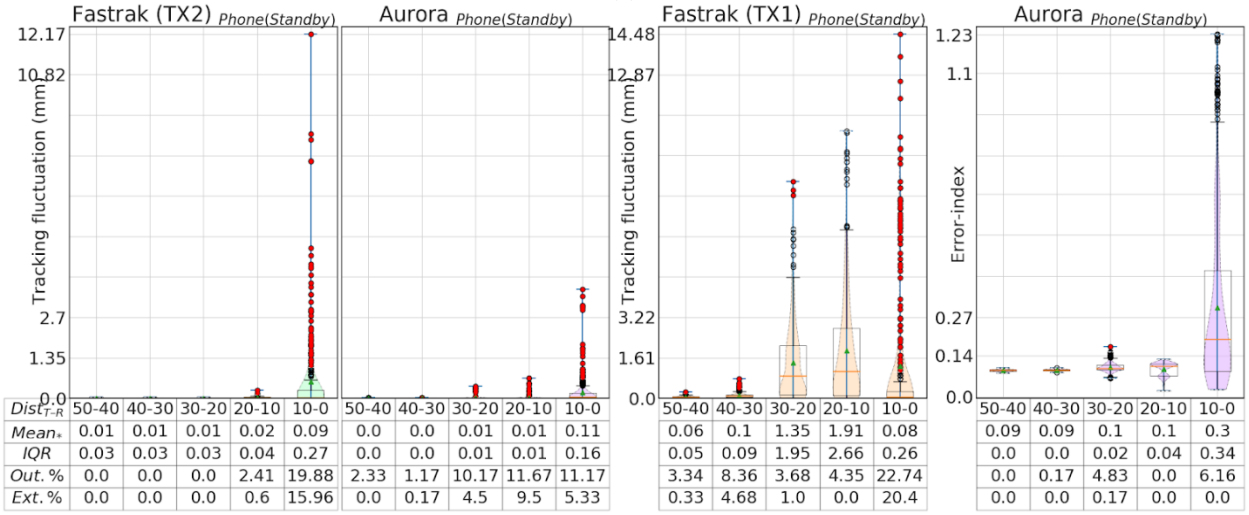
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0	0.04	0.04	0.04	0.04	0.04	0.09	0.09	0.09	0.09	0.09
IQR	0.01	0.01	0.01	0.01	0.01	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out.%	4.77	5.45	5.9	4.65	6.02	1.67	2.5	0.67	1.5	2.33	1.97	2.12	1.82	2.27	1.36	0.17	0.0	0.5	0.17	1.33
Ext.%	0.0	0.11	0.23	0.57	0.45	0.33	0.17	0.0	0.0	0.0	0.15	0.0	0.0	0.0	0.15	0.0	0.0	0.0	0.0	0.0

(I)



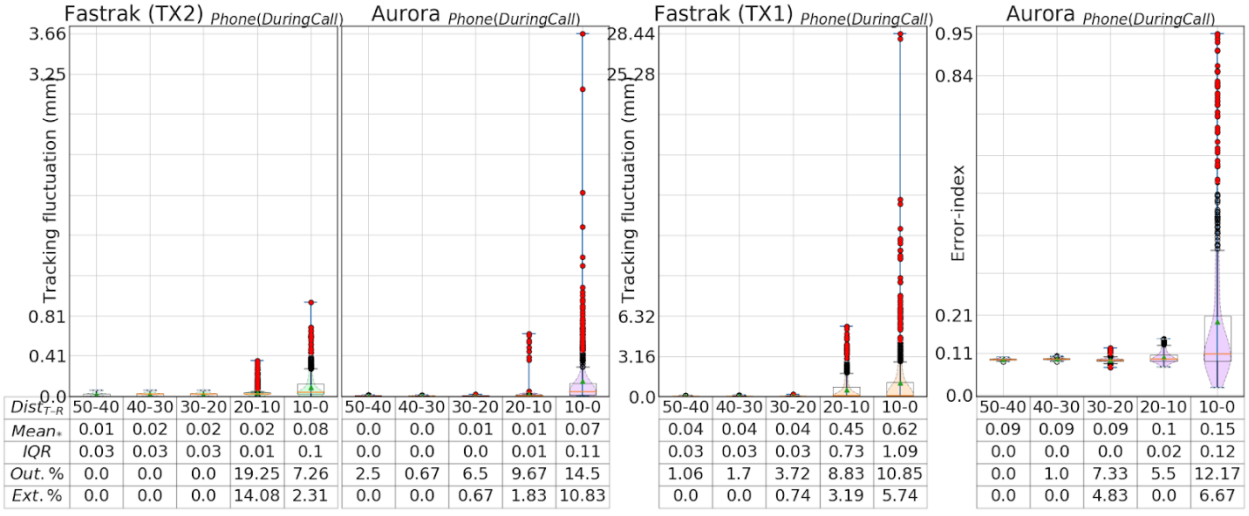
$Dist_{T\text{-}R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
Mean$_*$	0.02	0.01	0.01	0.01	0.01	0.0	0.0	0.0	0.0	0.01	0.04	0.04	0.04	0.04	0.05	0.09	0.09	0.09	0.09	0.09
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out.%	0.0	0.0	0.0	0.0	0.0	2.67	3.33	1.0	4.33	4.67	2.03	2.26	2.93	3.61	6.55	0.0	2.17	0.0	0.17	4.67
Ext.%	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.5	2.33	0.23	0.0	0.23	0.68	2.26	0.0	0.0	0.0	0.0	2.5

(J)



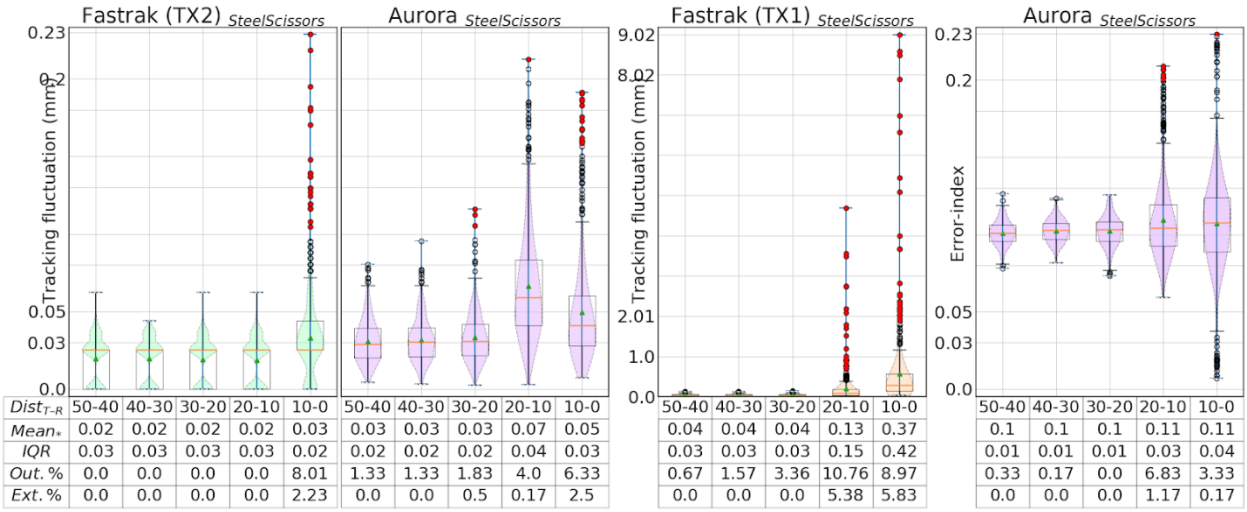
$Dist_{T\text{-}R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
Mean$_*$	0.01	0.01	0.01	0.02	0.09	0.0	0.0	0.01	0.01	0.11	0.06	0.1	1.35	1.91	0.08	0.09	0.09	0.1	0.1	0.3
IQR	0.03	0.03	0.03	0.04	0.27	0.0	0.0	0.01	0.01	0.16	0.05	0.09	1.95	2.66	0.26	0.0	0.0	0.02	0.04	0.34
Out.%	0.0	0.0	0.0	2.41	19.88	2.33	1.17	10.17	11.67	11.17	3.34	8.36	3.68	4.35	22.74	0.0	0.17	4.83	0.0	6.16
Ext.%	0.0	0.0	0.0	0.6	15.96	0.0	0.17	4.5	9.5	5.33	0.33	4.68	1.0	0.0	20.4	0.0	0.0	0.17	0.0	0.0

(K)



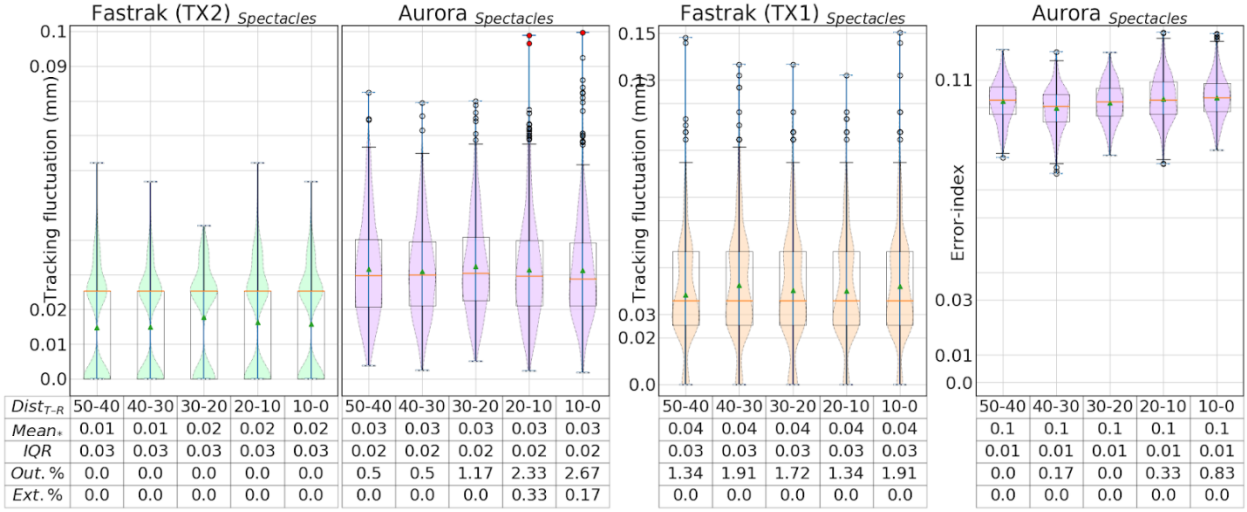
$Dist_{T\text{-}R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
Mean$_*$	0.01	0.02	0.02	0.02	0.08	0.0	0.0	0.01	0.01	0.07	0.04	0.04	0.04	0.45	0.62	0.09	0.09	0.09	0.1	0.15
IQR	0.03	0.03	0.03	0.01	0.1	0.0	0.0	0.0	0.01	0.11	0.03	0.03	0.03	0.73	1.09	0.0	0.0	0.0	0.02	0.12
Out.%	0.0	0.0	0.0	19.25	7.26	2.5	0.67	6.5	9.67	14.5	1.06	1.7	3.72	8.83	10.85	0.0	1.0	7.33	5.5	12.17
Ext.%	0.0	0.0	0.0	14.08	2.31	0.0	0.0	0.67	1.83	10.83	0.0	0.0	0.74	3.19	5.74	0.0	0.0	4.83	0.0	6.67

(L)



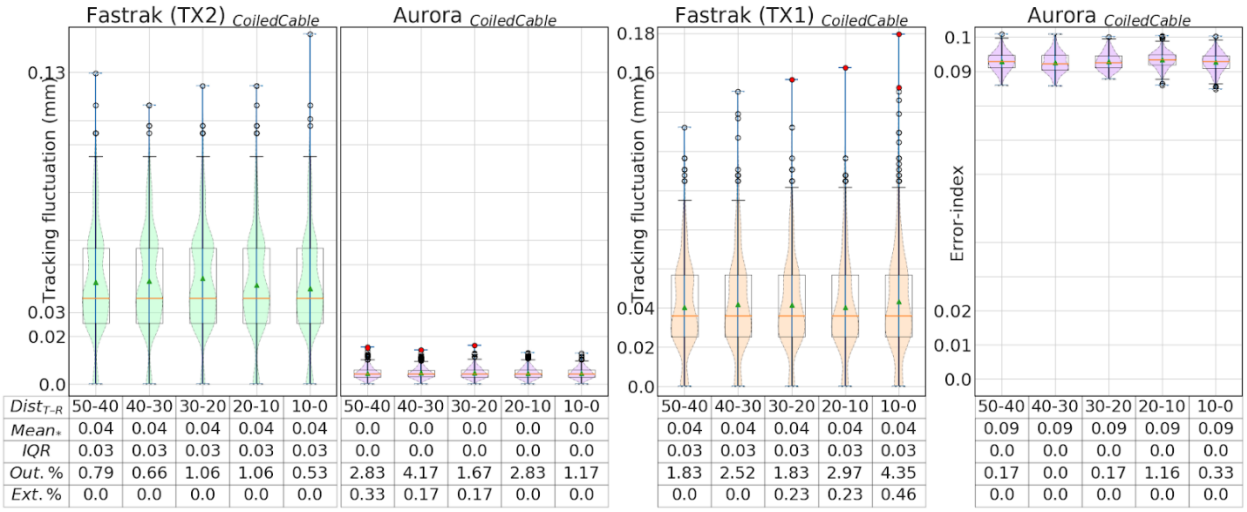
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.07	0.05	0.04	0.04	0.04	0.13	0.37	0.1	0.1	0.1	0.11	0.11
IQR	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.04	0.03	0.03	0.03	0.03	0.15	0.42	0.01	0.01	0.01	0.03	0.04
Out.%	0.0	0.0	0.0	0.0	8.01	1.33	1.33	1.83	4.0	6.33	0.67	1.57	3.36	10.76	8.97	0.33	0.17	0.0	6.83	3.33
Ext.%	0.0	0.0	0.0	0.0	2.23	0.0	0.0	0.5	0.17	2.5	0.0	0.0	0.0	5.38	5.83	0.0	0.0	0.0	1.17	0.17

(M)



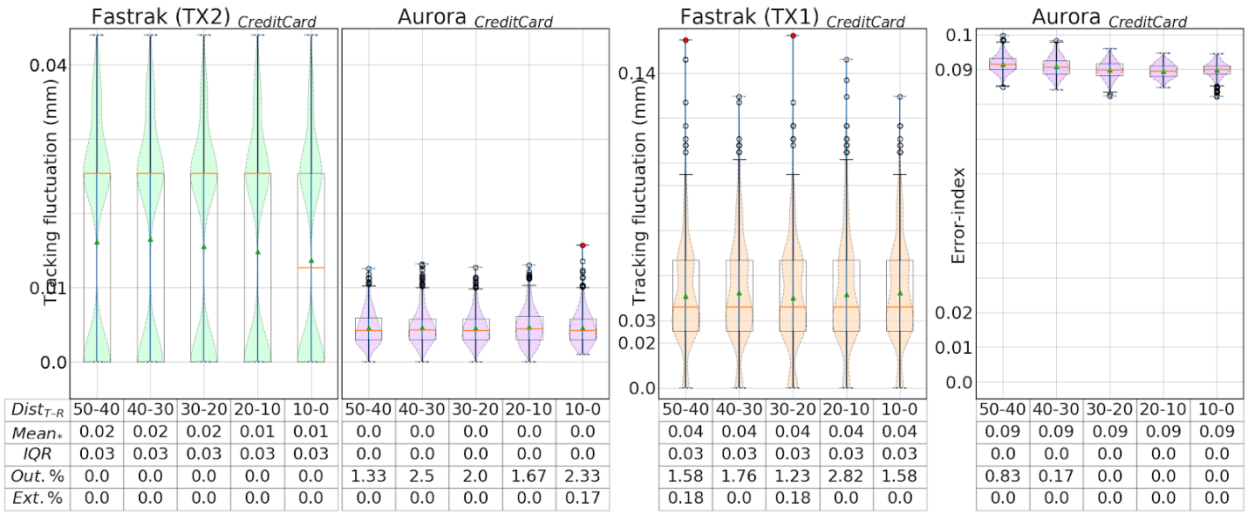
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.1	0.1	0.1	0.1	0.1
IQR	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01
Out.%	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.17	2.33	2.67	1.34	1.91	1.72	1.34	1.91	0.0	0.17	0.0	0.33	0.83
Ext.%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.33	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(N)



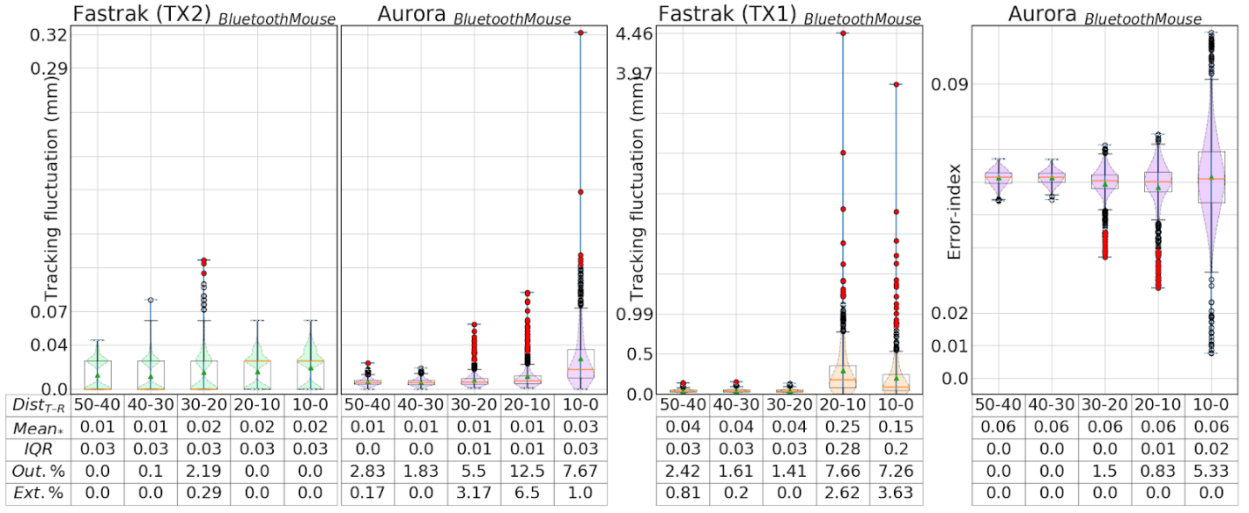
$Dist_{T-R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.04	0.04	0.04	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.04	0.04	0.04	0.04	0.04	0.09	0.09	0.09	0.09	0.09
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out.%	0.79	0.66	1.06	1.06	0.53	2.83	4.17	1.67	2.83	1.17	1.83	2.52	1.83	2.97	4.35	0.17	0.0	0.17	1.16	0.33
Ext.%	0.0	0.0	0.0	0.0	0.0	0.33	0.17	0.17	0.0	0.0	0.0	0.0	0.23	0.23	0.46	0.0	0.0	0.0	0.0	0.0

(O)



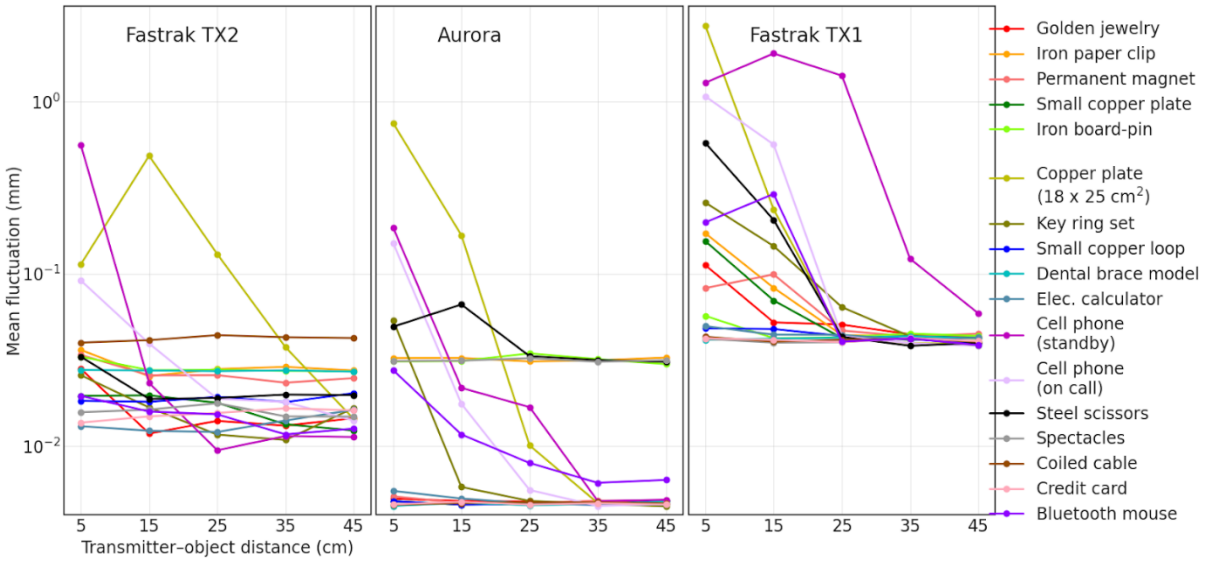
$Dist_{T\text{-}R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.02	0.02	0.02	0.01	0.01	0.0	0.0	0.0	0.0	0.0	0.04	0.04	0.04	0.04	0.04	0.09	0.09	0.09	0.09	0.09
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.0	0.0	0.0
Out. %	0.0	0.0	0.0	0.0	0.0	1.33	2.5	2.0	1.67	2.33	1.58	1.76	1.23	2.82	1.58	0.83	0.17	0.0	0.0	0.0
Ext. %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.17	0.18	0.0	0.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(P)



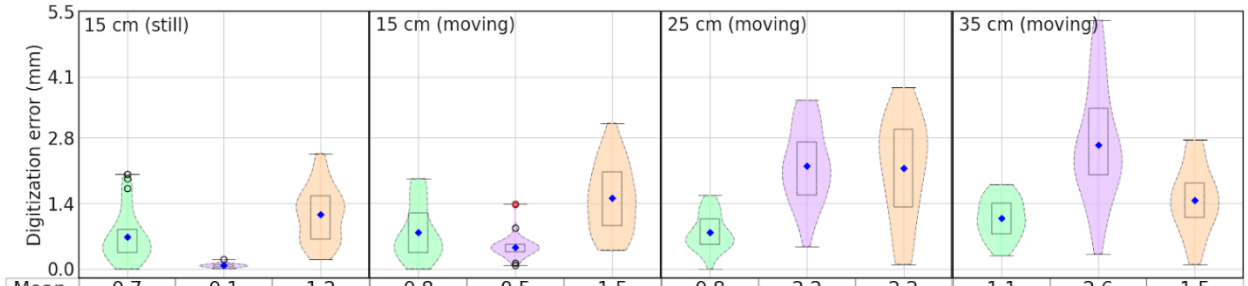
$Dist_{T\text{-}R}$	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0	50-40	40-30	30-20	20-10	10-0
$Mean_*$	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.03	0.04	0.04	0.04	0.25	0.15	0.06	0.06	0.06	0.06	0.06
IQR	0.03	0.03	0.03	0.03	0.03	0.0	0.0	0.01	0.01	0.03	0.03	0.03	0.03	0.28	0.2	0.0	0.0	0.0	0.01	0.02
Out. %	0.0	0.1	2.19	0.0	0.0	2.83	1.83	5.5	12.5	7.67	2.42	1.61	1.41	7.66	7.26	0.0	0.0	1.5	0.83	5.33
Ext. %	0.0	0.0	0.29	0.0	0.0	0.17	0.0	3.17	6.5	1.0	0.81	0.2	0.0	2.62	3.63	0.0	0.0	0.0	0.0	0.0

(Q)



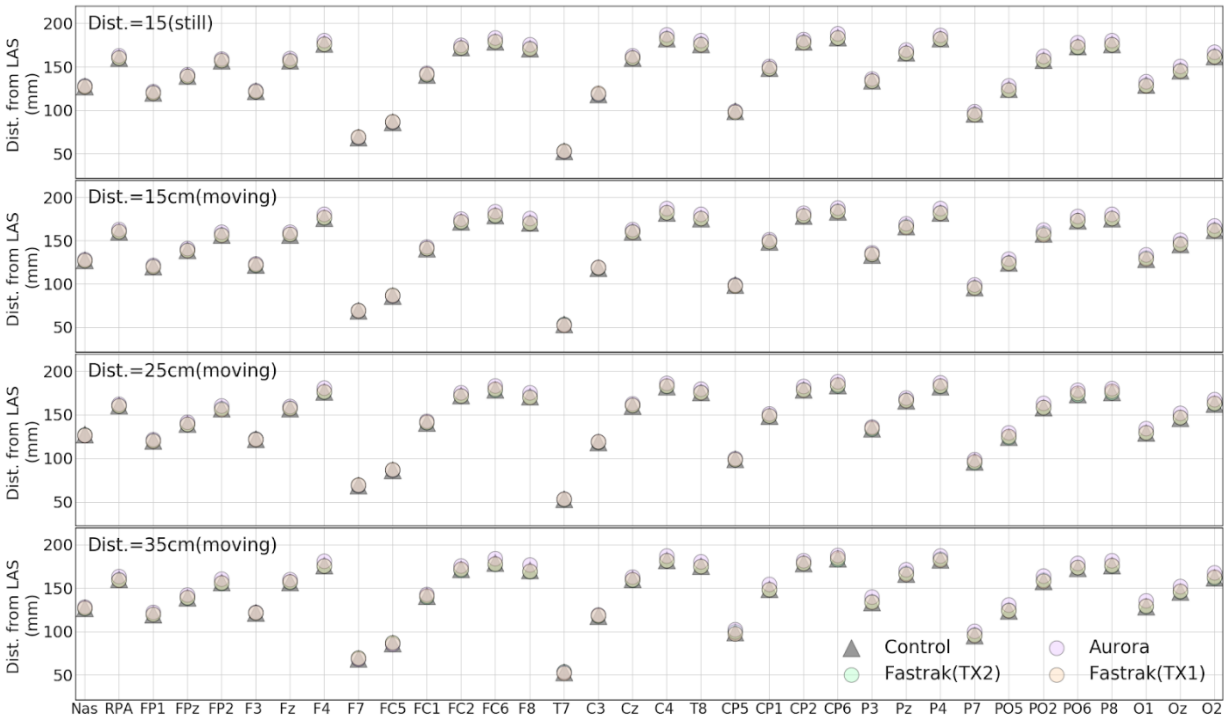
(R)

Figure S4. Tracking fluctuation for the systems in the presence of different objects at varying distance from the FG and stylus: A) Jewelry (golden ring, Ø = 2 cm); B) Paper clip (iron, 2 cm); C) Permanent magnet (Ø = 2 cm); D) Copper plate (2 cm x 2 cm); E) Copper plate (18 cm x 25 cm); F) Copper loop (Ø = 4 cm); G) Board pin (iron, 1.5 cm); H) Key ring (iron, 10 cm); I) Dental brace; J) Electronic calculator (switched on); K) Mobile phone (standby); L) Mobile phone (on call); M) Scissors (stainless steel, 15 cm); N) Spectacles (metallic frame); O) Phone charging cable (coiled, Ø = 4 cm); P) Credit card; Q) Bluetooth mouse; and R) Mean fluctuation for all the three systems at five distances



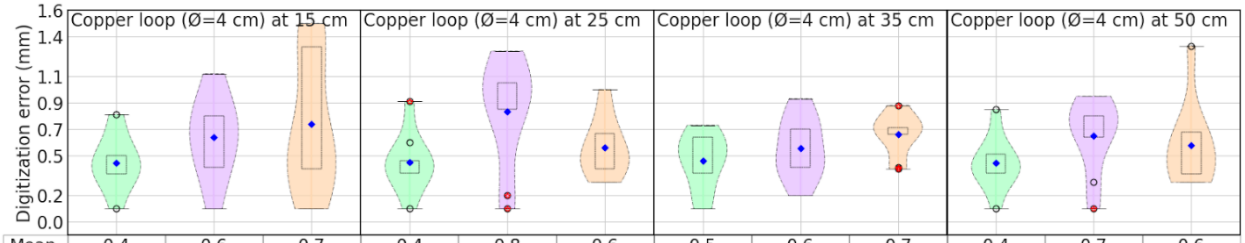
Mean	0.7	0.1	1.2	0.8	0.5	1.5	0.8	2.2	2.2	1.1	2.6	1.5
IQR	0.5	0.0	0.9	0.8	0.2	1.1	0.5	1.1	1.7	0.7	1.4	0.7
Out %	8.6	2.9	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ext %	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(A)



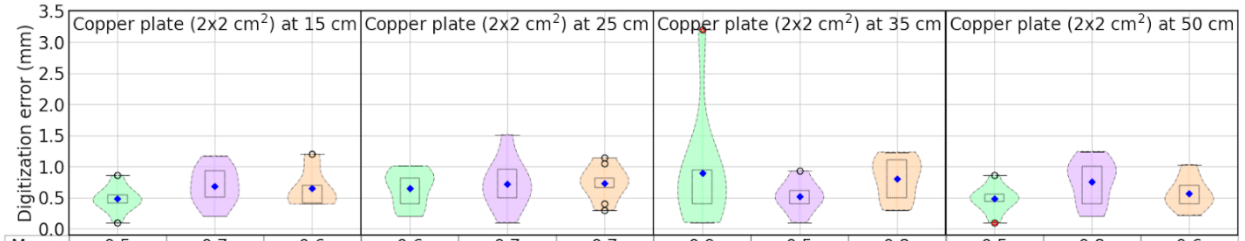
(B)

Figure S5. For 32-channel EEG cap A) Digitization error in different conditions; B) Distances between LPA and rest 34 locations (32 electrodes and 2 fiducials).



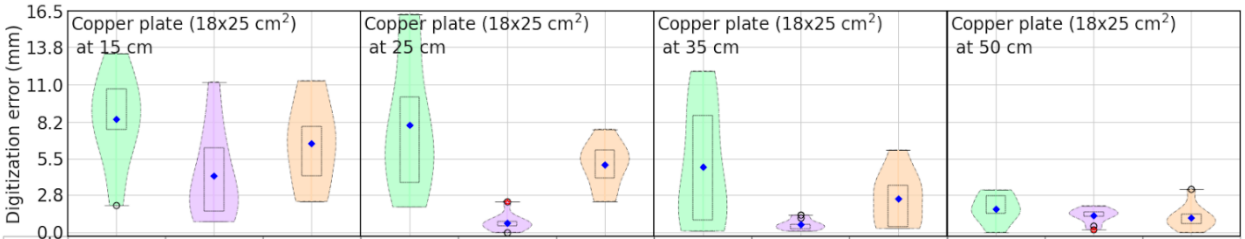
Mean	0.4	0.6	0.7	0.4	0.8	0.6	0.5	0.6	0.7	0.4	0.7	0.6
IQR	0.1	0.4	0.9	0.1	0.2	0.3	0.3	0.3	0.0	0.1	0.2	0.3
Out %	11.1	0.0	0.0	22.2	0.0	0.0	0.0	0.0	11.1	11.1	0.0	11.1
Ext %	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0

(A)



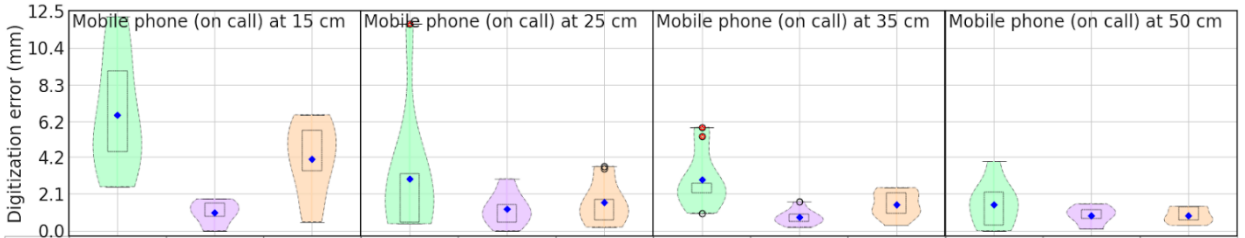
Mean	0.5	0.7	0.6	0.6	0.7	0.7	0.9	0.5	0.8	0.5	0.8	0.6
IQR	0.1	0.4	0.3	0.4	0.4	0.2	0.5	0.2	0.6	0.1	0.6	0.3
Out %	11.1	0.0	11.1	0.0	0.0	22.2	11.1	11.1	0.0	11.1	0.0	0.0
Ext %	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0

(B)



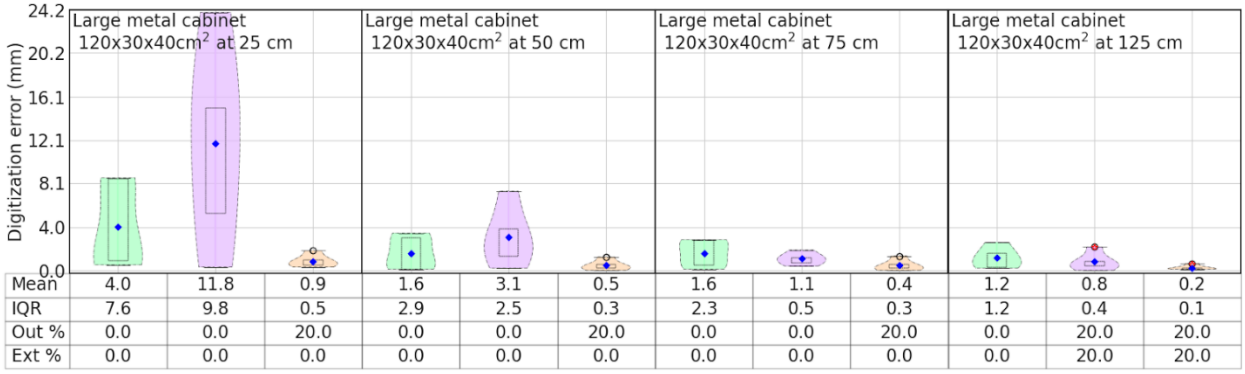
Mean	8.4	4.2	6.6	8.0	0.7	5.0	4.9	0.6	2.5	1.7	1.2	1.1
IQR	3.0	4.7	3.7	6.4	0.3	2.1	7.8	0.3	3.1	1.3	0.3	0.7
Out %	0.0	0.0	0.0	0.0	11.1	0.0	0.0	22.2	0.0	0.0	0.0	11.1
Ext %	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(C)



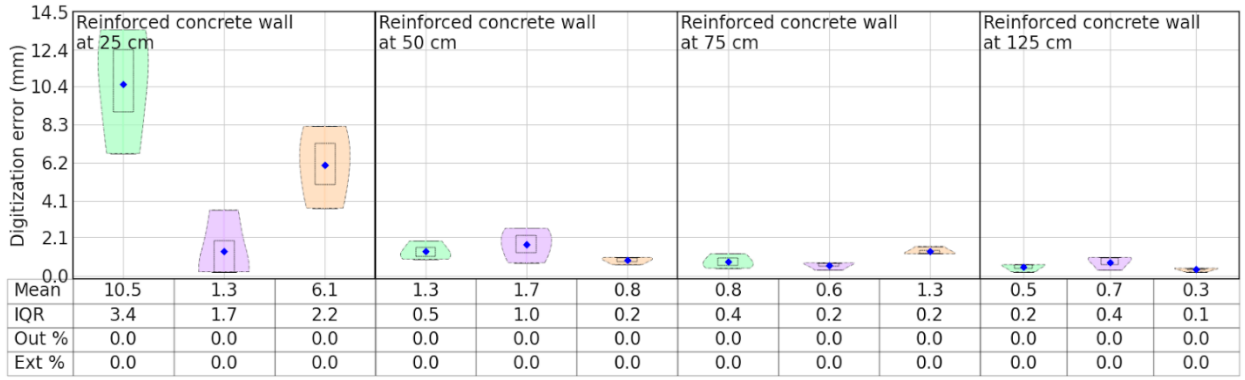
Mean	6.6	1.0	4.1	2.9	1.2	1.6	2.9	0.8	1.5	1.5	0.9	0.9
IQR	4.6	0.8	2.3	2.7	1.0	1.2	0.6	0.4	1.2	1.9	0.5	0.8
Out %	0.0	0.0	0.0	11.1	0.0	22.2	22.2	11.1	0.0	0.0	0.0	0.0
Ext %	0.0	0.0	0.0	11.1	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0

(D)



Mean	4.0	11.8	0.9	1.6	3.1	0.5	1.6	1.1	0.4	1.2	0.8	0.2
IQR	7.6	9.8	0.5	2.9	2.5	0.3	2.3	0.5	0.3	1.2	0.4	0.1
Out %	0.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	20.0	0.0	20.0	20.0
Ext %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0

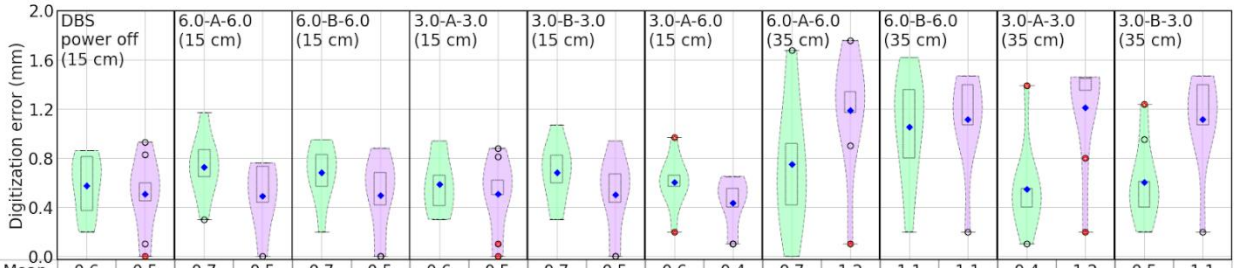
(E)



Mean	10.5	1.3	6.1	1.3	1.7	0.8	0.8	0.6	1.3	0.5	0.7	0.3
IQR	3.4	1.7	2.2	0.5	1.0	0.2	0.4	0.2	0.2	0.2	0.4	0.1
Out %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ext %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(F)

Figure S6. Digitization accuracy of the three systems when (A) a copper loop (Ø = 4 cm), (B) a small copper plate (2 cm x 2 cm), (C) a large copper plate (18 cm x 25 cm), (D) an on-call mobile phone, E) a large (1.2 m x 0.3 m x 0.4 m) metal cabinet, F) a steel reinforced concrete (RCC) wall, was at varying distances (mentioned in plots titles) from the transmitter.



Mean	0.6	0.5	0.7	0.5	0.7	0.5	0.6	0.5	0.7	0.5	0.6	0.4	0.7	1.2	1.1	1.1	0.4	1.2	0.5	1.1
IQR	0.4	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.5	0.2	0.6	0.3	0.2	0.1	0.2	0.3
Out %	0.0	22.2	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	11.1	0.0	11.1	11.1	0.0	0.0	11.1	0.0	22.2	0.0
Ext %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	11.1	0.0	11.1	0.0

Figure S7. Digitization accuracy of the Fastrak TX2 and Aurora systems in the presence of an active DBS. The therapy setting and distance of the test model from the transmitter are mentioned in the plot legend.