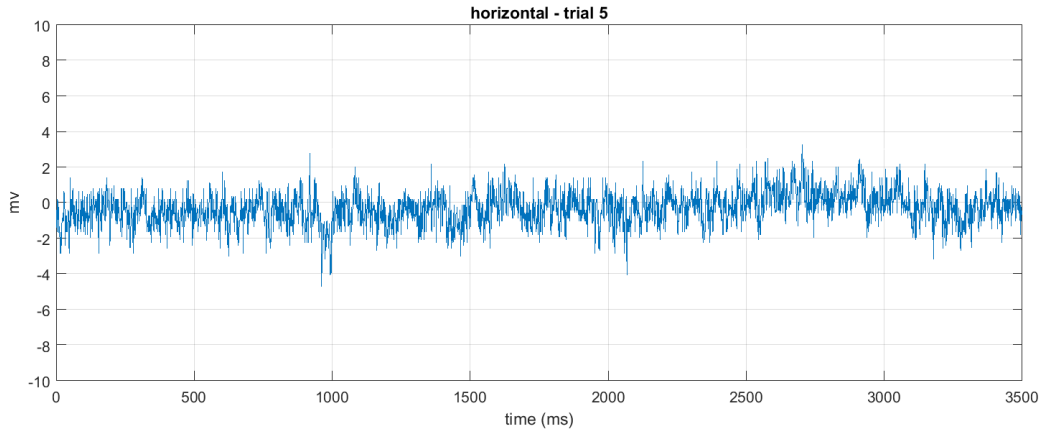
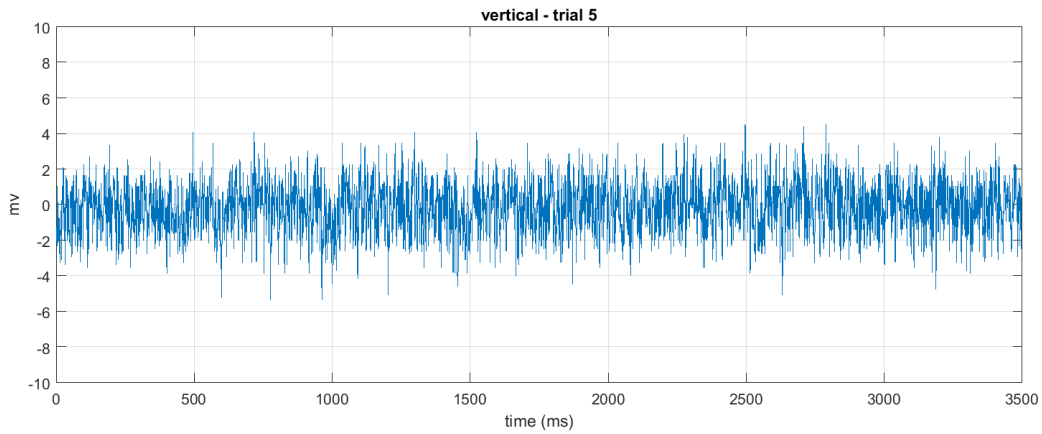
Monday – February 26, 2018

Stationary Artificial Eye Test

The noise levels look good in trials 3-6. (There is a pop-up window occurring after starting the recording that could be causing a blip in the data in the first trial.) There is still more noise in the vertical than the horizontal.

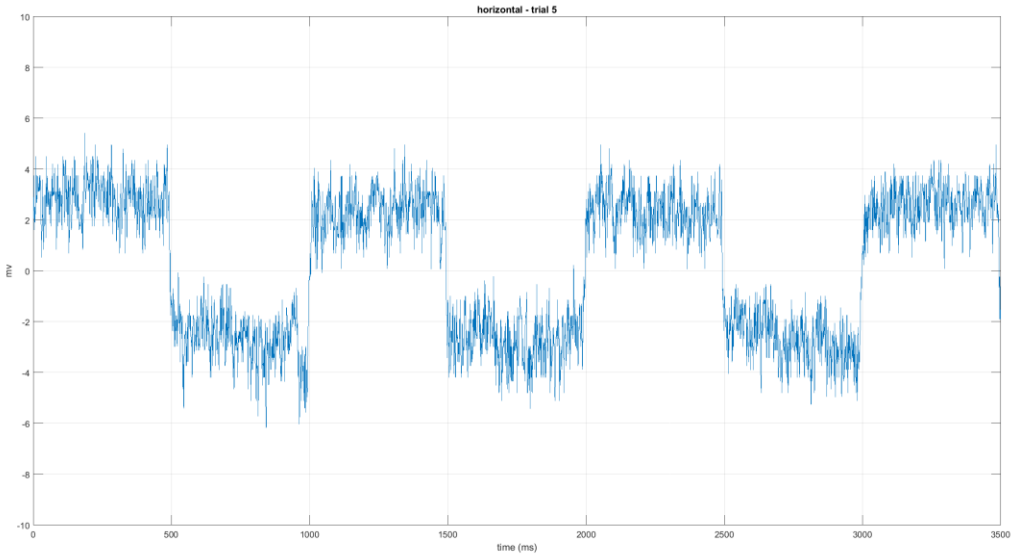
	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6
Std_Hor(mv)	1.614	1.017	0.931	0.904	0.931	2.148
Std_Ver(mv)	2.057	2.652	1.485	1.515	1.492	1.511
Std_Hor(arcmin)	0.323	0.203	0.186	0.181	0.186	0.430
Std_Ver(arcmin)	0.411	0.530	0.297	0.303	0.298	0.302
rms_Hor(mv)	4.097	1.222	1.009	0.904	1.255	5.080
rms_Ver(mv)	4.233	2.666	1.485	1.585	1.622	1.549
rms_Hor(arcmin)	0.819	0.244	0.202	0.181	0.251	1.016
rms_Ver(arcmin)	0.847	0.533	0.297	0.317	0.324	0.310

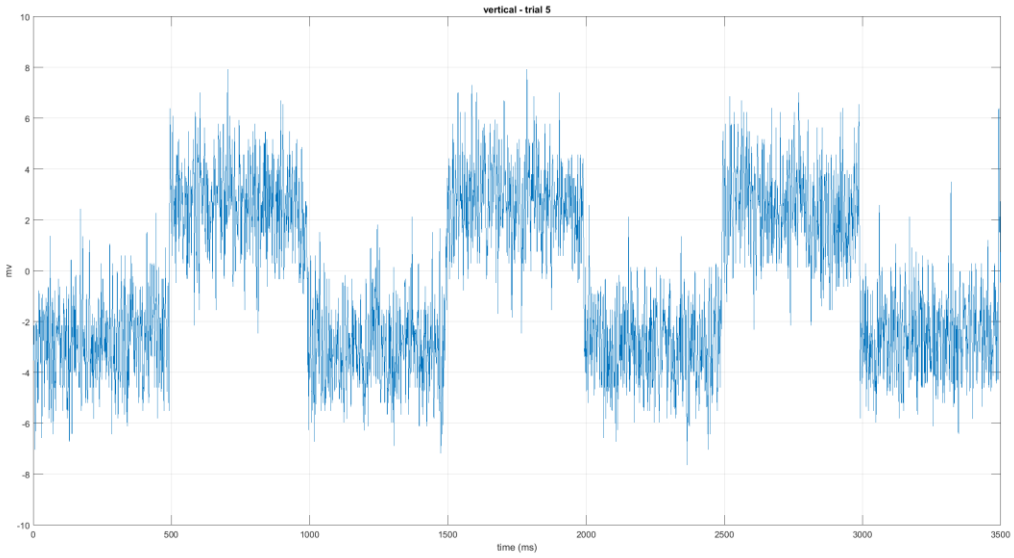




Artificial Eye Resolution Test

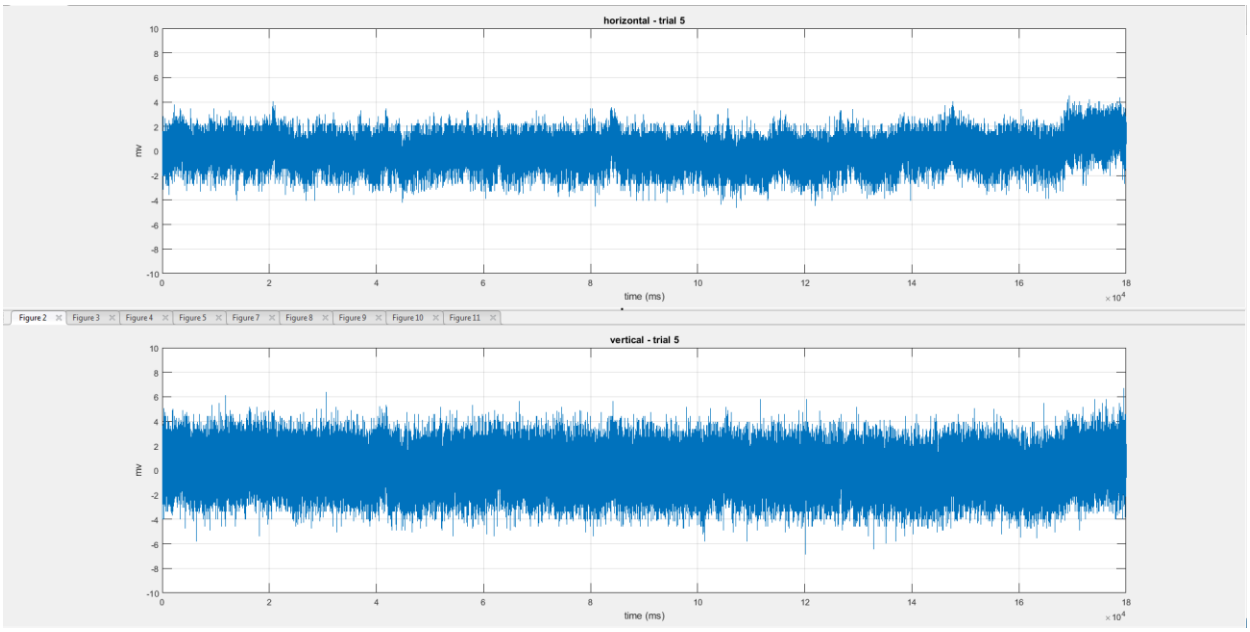
1.1 arcmin, 1Hz square wave.





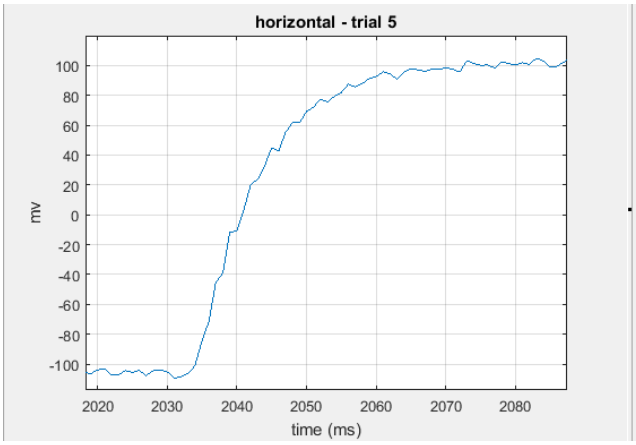
Long stationary artificial eye

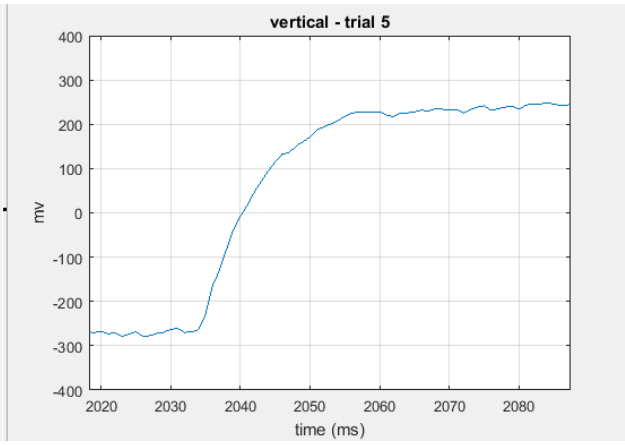
3 minute recording - Looks okay – there does seem to be a slow downward drift on the horizontal. There also seems to be a blip near the end of the recording.

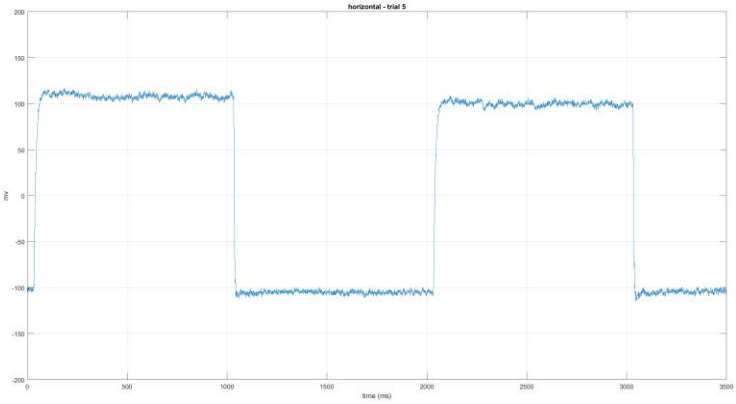


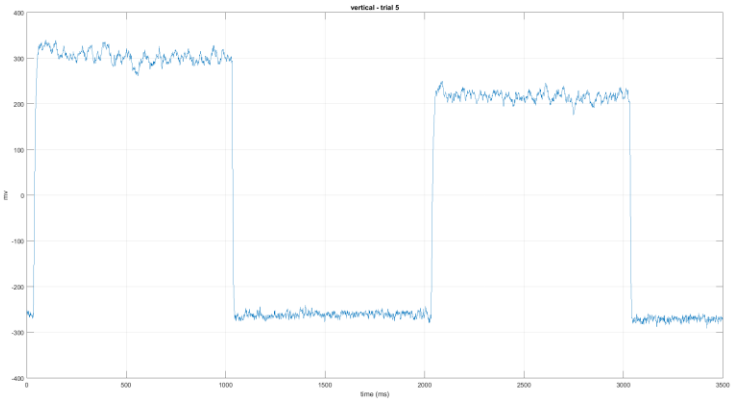
Dynamic Test

Here we measured the artificial eye during a square wave that was 40arcmin on horizontal and 2deg on vertical. The dynamics seem pretty slow (40ms for horizontal and 30ms for vertical). The long integration times also seem consistent with the noise levels (longer on horizontal → less noise on horizontal).





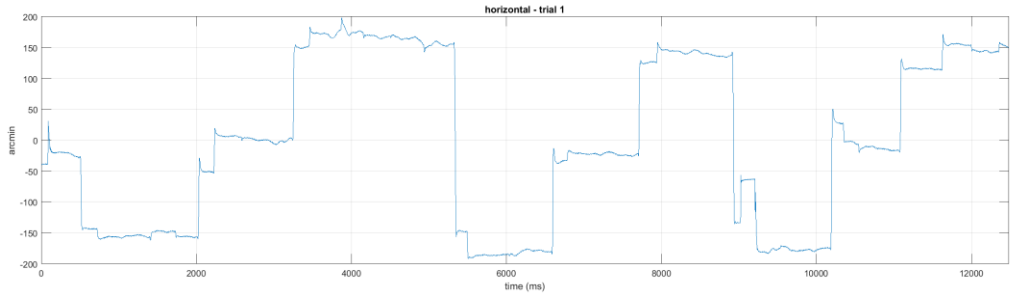


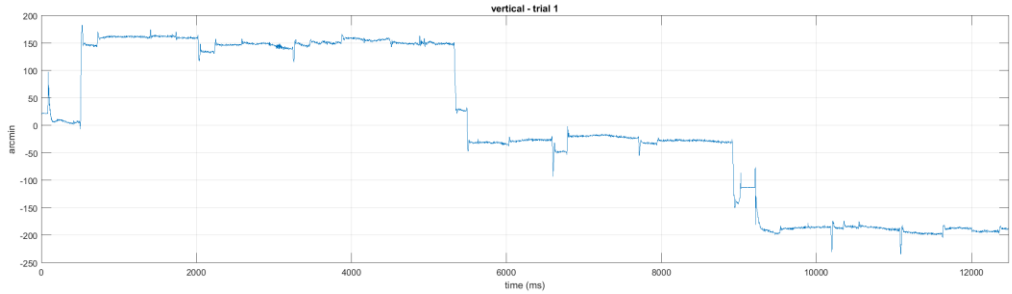


Real eye recording

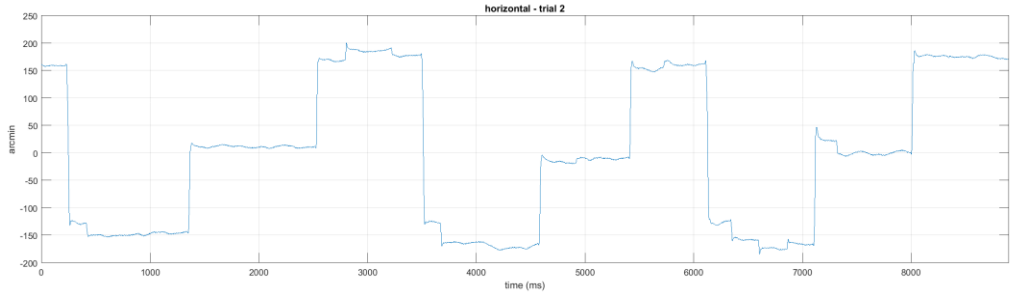
(Janis's eye)

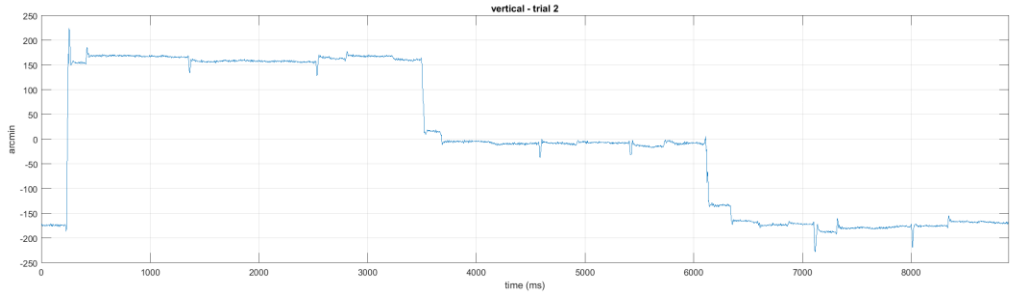
9 point grid trial #1





9 point grid trial #2





The overshoots don’t look right though – sometimes they are missing (example around 2550ms on the left) and they generally decay very slowly (around 2800ms on the right). The oscillations in the vertical trace seem to periodic to us but it could just be the noise level of the vertical system right now.