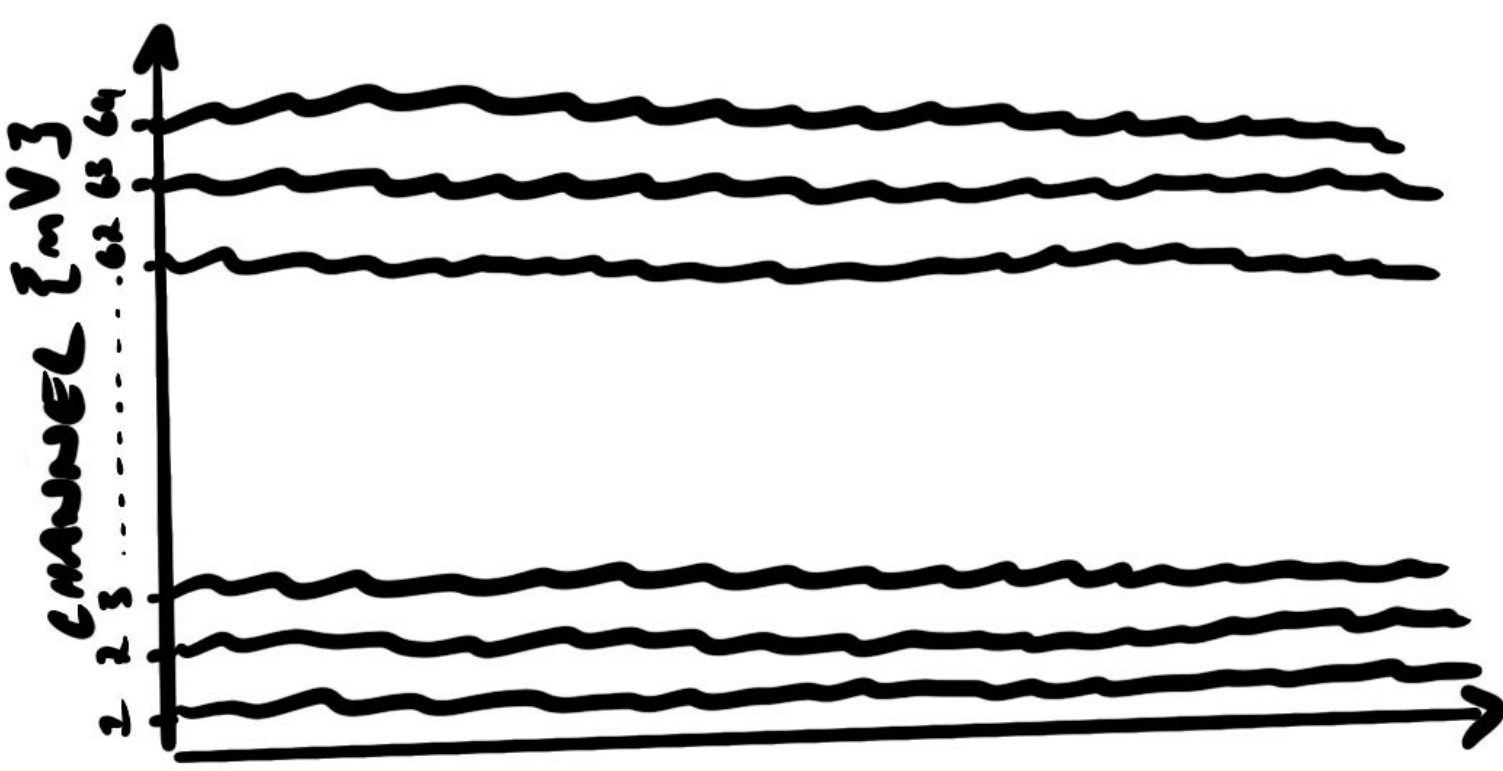
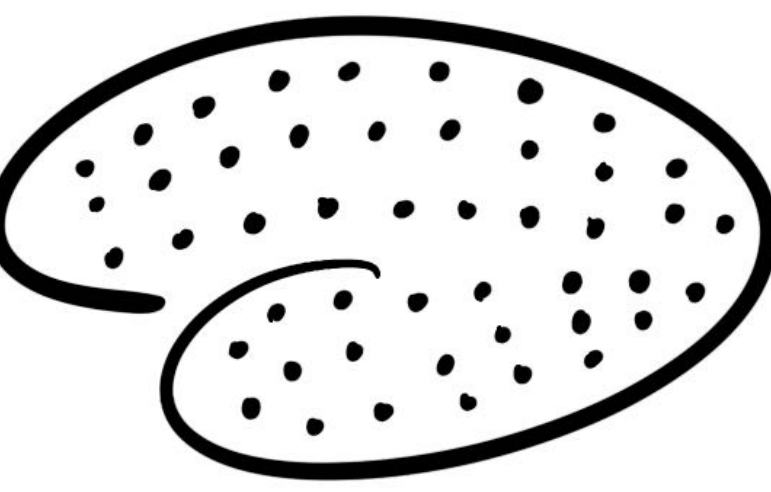
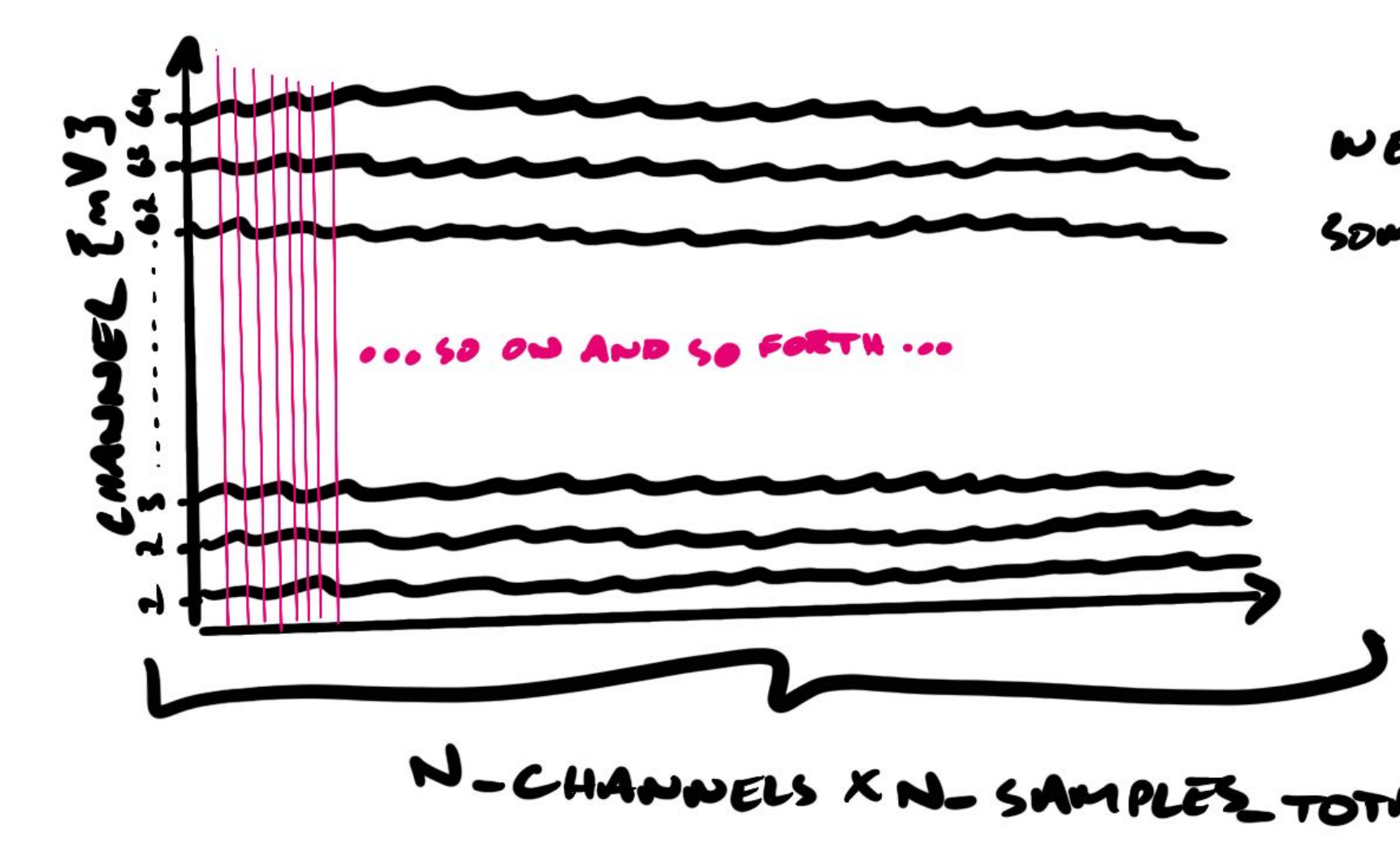


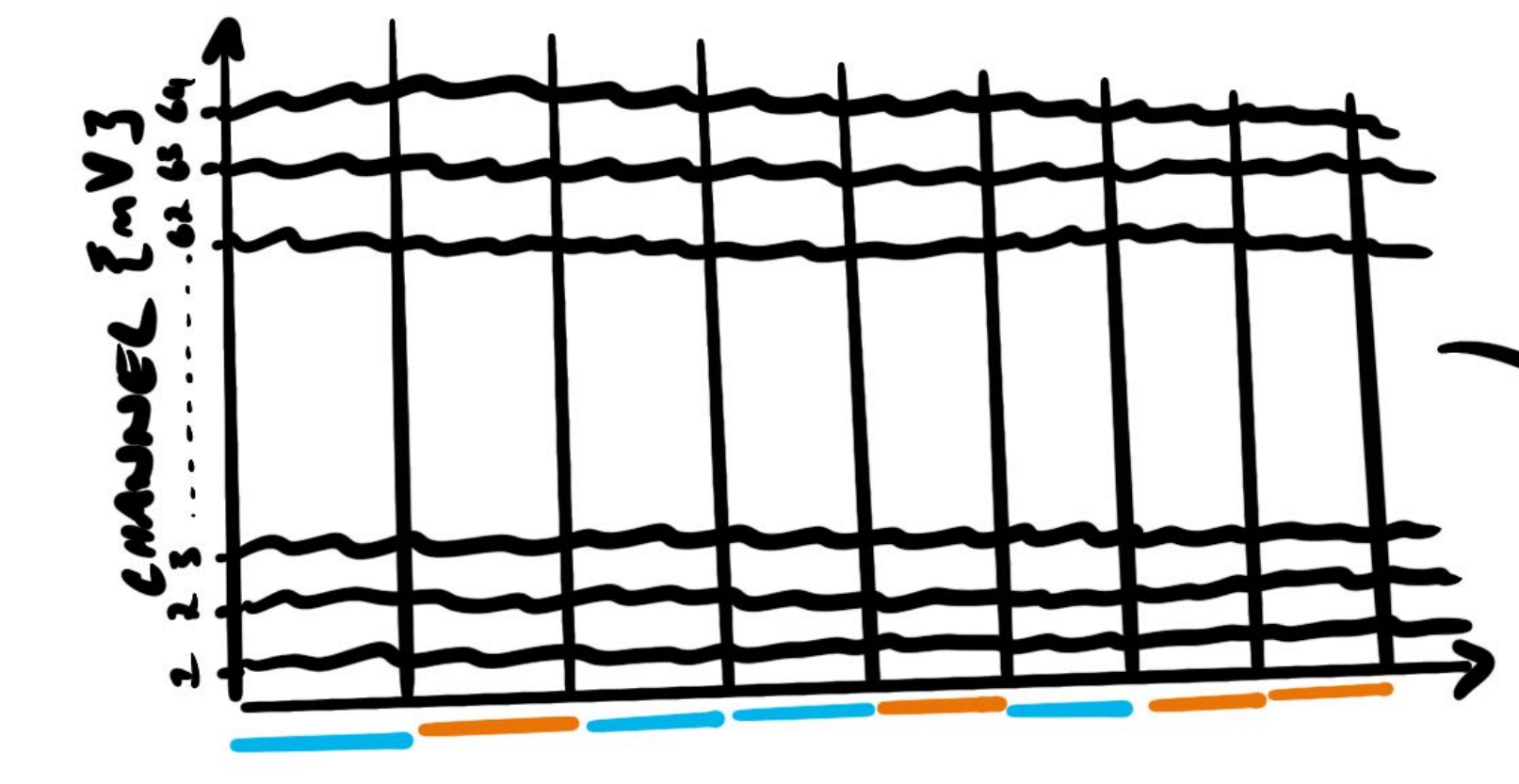
64 SENSORS
{ ALSO CALLED CHANNELS }



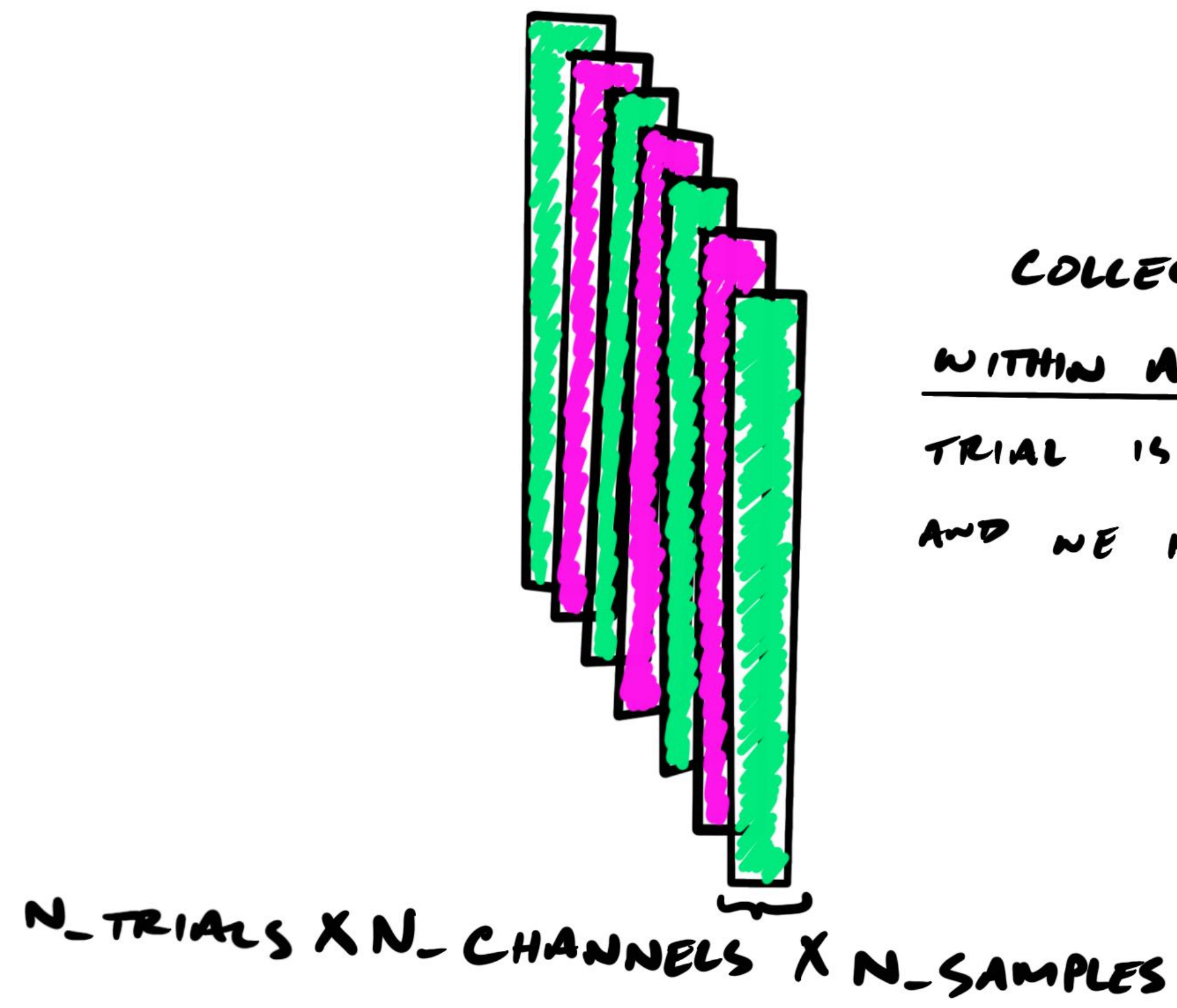
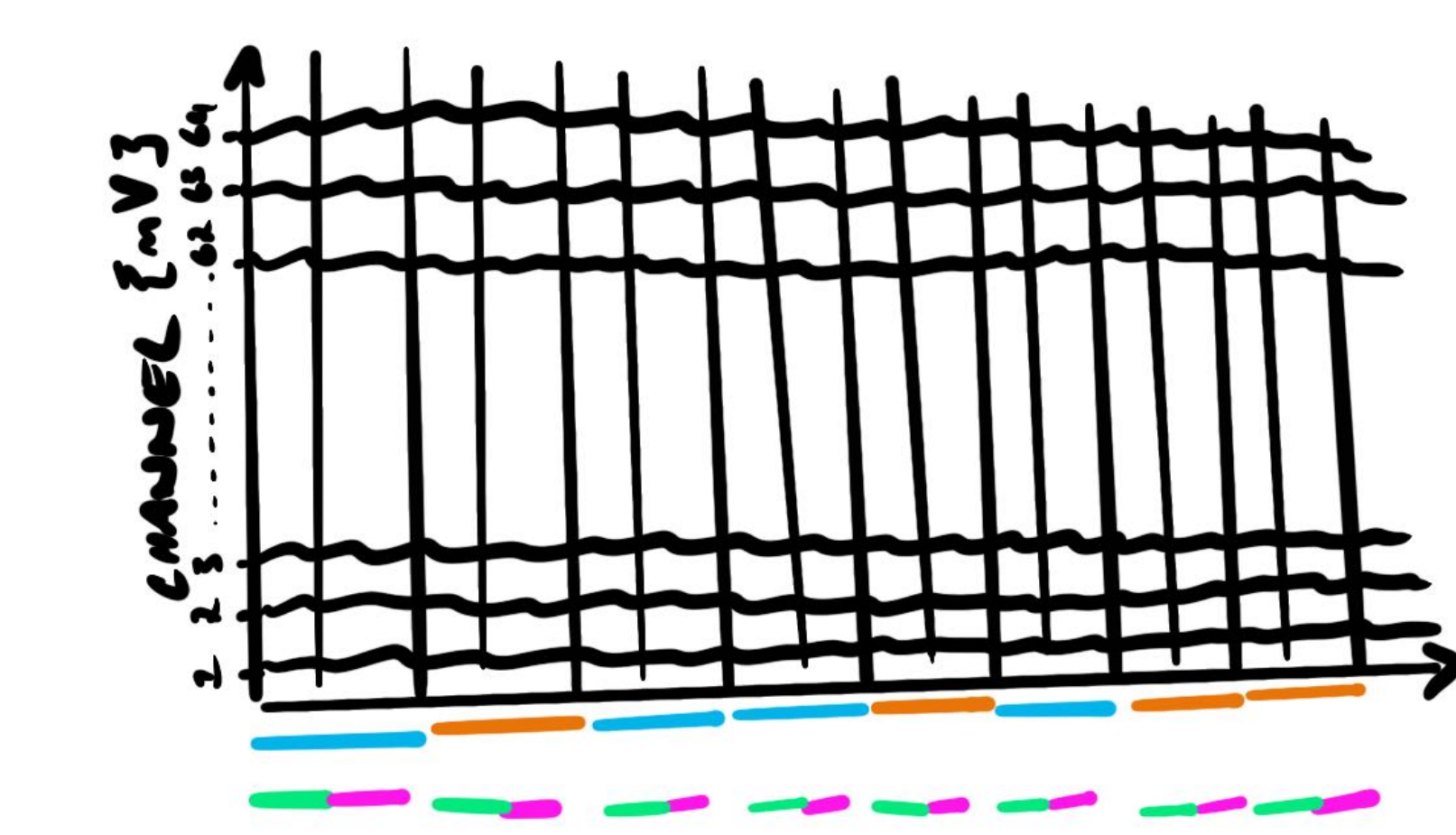
THE BRAIN GIVES ELECTRICAL SIGNAL (mV) IN CONTINUOUS TIME



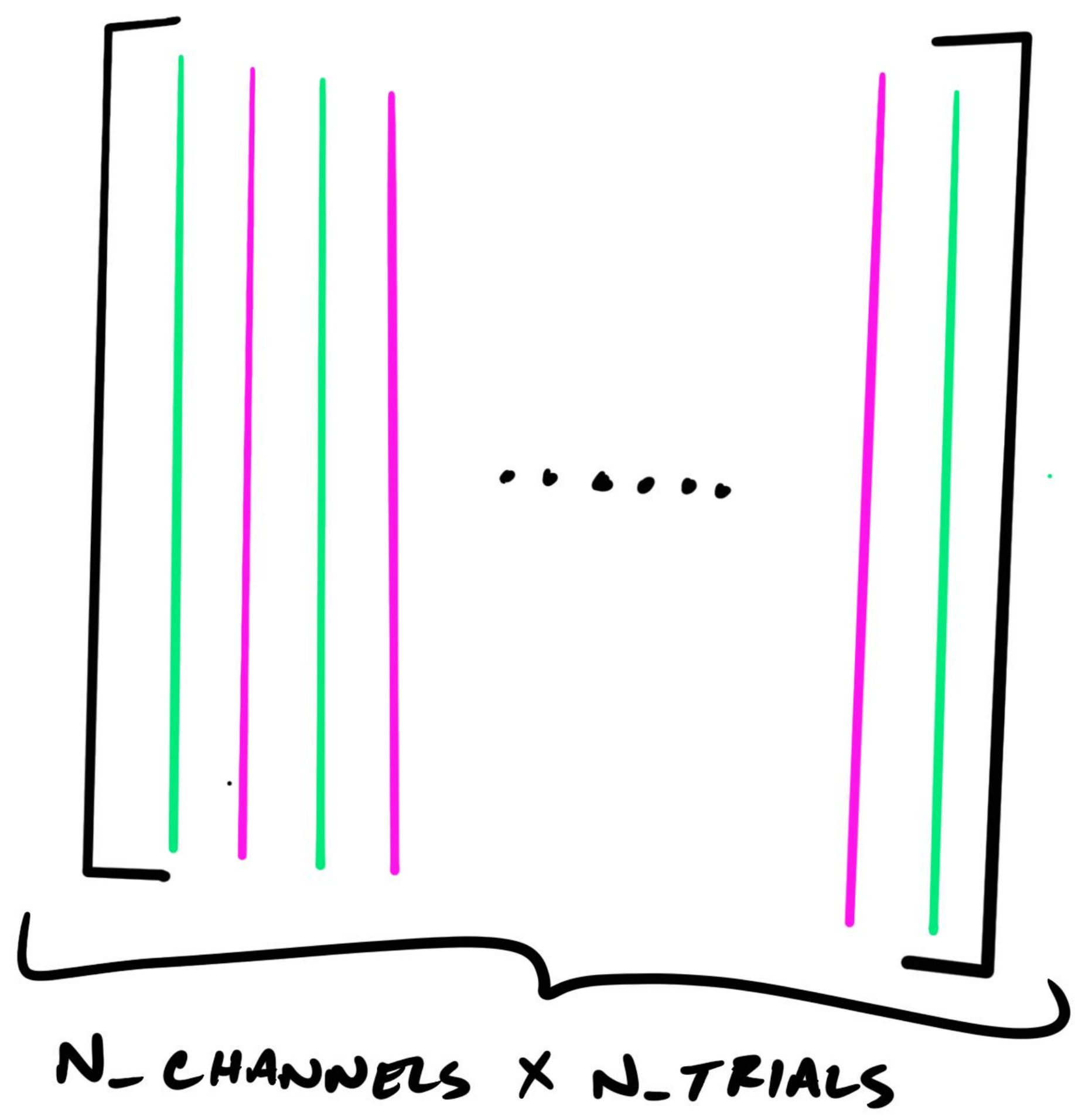
WE TAKE DISCRETE SAMPLES AT SOMETHING LIKE 2048 SAMPLES/SEC



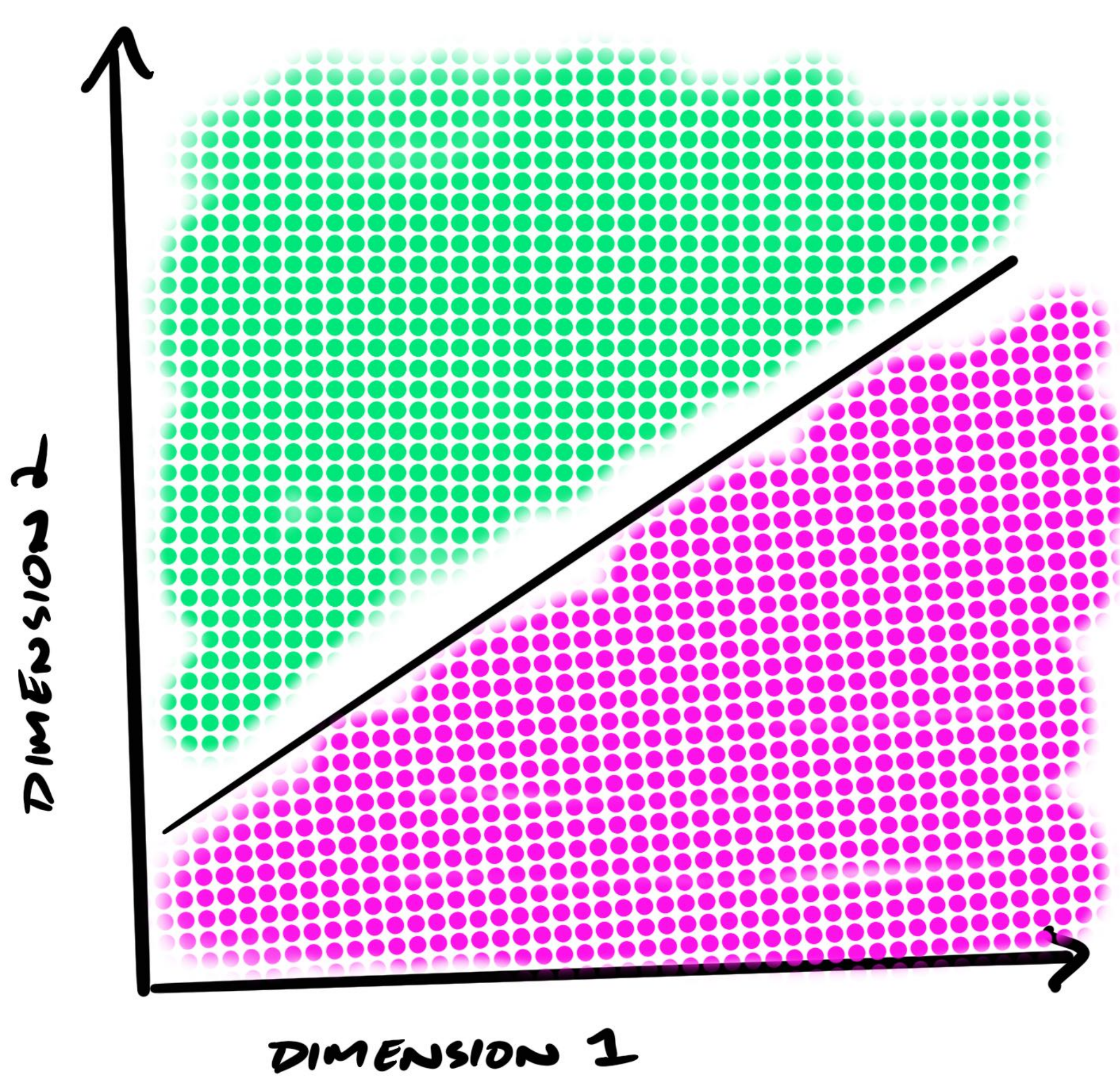
LONG TIME SERIES IS COMPOSED OF DIFFERENT TRIALS EACH DEFINED BY A MODALITY {VISUAL, TOUCH} AND A TOUCH LOCATION {PINKY, THUMB}



COLLECT ALL TRIALS
WITHIN A MODALITY. EACH TRIAL IS N-CHANNELS X N-SAMPLES AND WE HAVE N-TRIALS OF THEM.



WE PICK A TIMEPOINT WITHIN EACH TRIAL. THIS GIVES US A MATRIX THAT IS N-CHANNELS X N-TRIALS.



- CONSIDER AN EXAMPLE WHERE WE HAVE ONLY 2 CHANNELS { ALSO CALLED DIMENSIONS }
- EACH DOT IS A TRIAL EITHER PINKY OR THUMB
- THE MACHINE LEARNING CLASSIFIER TRIES TO LEARN THE BOUNDARY {LINE} THAT BEST SEPARATES PINKY FROM THUMB