

G4 Command	Format	Description	Response (valid)	Response (invalid)	Comments/questions
All-On	0x1, 0xFF	Turn on all LEDs	Length of Response (includes length of message + 2), 0x00, 0xFF, Message	respond with "Invalid-Command" response	
Stop-Display	0x1, 0x30	stop sending anything to display in any mode / screen should go dark (don't need separate All-Off)	Length of Response (includes length of message + 2), 0x00, 0x30, Message	respond with "Invalid-Command" response	
Stream-Frame	0x32, Data Length-LO, Data Length-HI, X_AO-LO, X_AO-HI, Y_AO-LO, Y_AO-HI, Frame Data	Stream frame data is only valid when a trial is not currently running. It should operate as 'sample and hold,' where the controller sends out the most recently received frame until a new one comes in or 'Stop-Display' is received. The frame rate should be set by the controller.	TBD	respond with "Invalid-Command" response	when AO is implemented, this command could also be used to set up to 2 AO values along with each display frame, and until then, we just set to zero / ignore these 4 bytes.
Trial-Params (aka combined command)	0xb, 0x8, Control Mode, PatternID-LO, PatternID-HI, Frame Rate-LO, Frame Rate-HI, InitPos-HI, InitPos-LO, Gain-HI, Gain-LO, Runtime Duration-LO, Runtime Duration-HI.	Combines control mode with the necessary parameters to specify a trail. This command also initiates the trial so there is no need for a separate start command	Length of Response (includes length of message + 2), 0x00, 0x08, Message	respond with "Invalid-Command" response	Not using the prior format since that command was only for Open Loop trials and has irrelevant parameters.

Example of response

