Proj1 Phase2 Report

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Figures
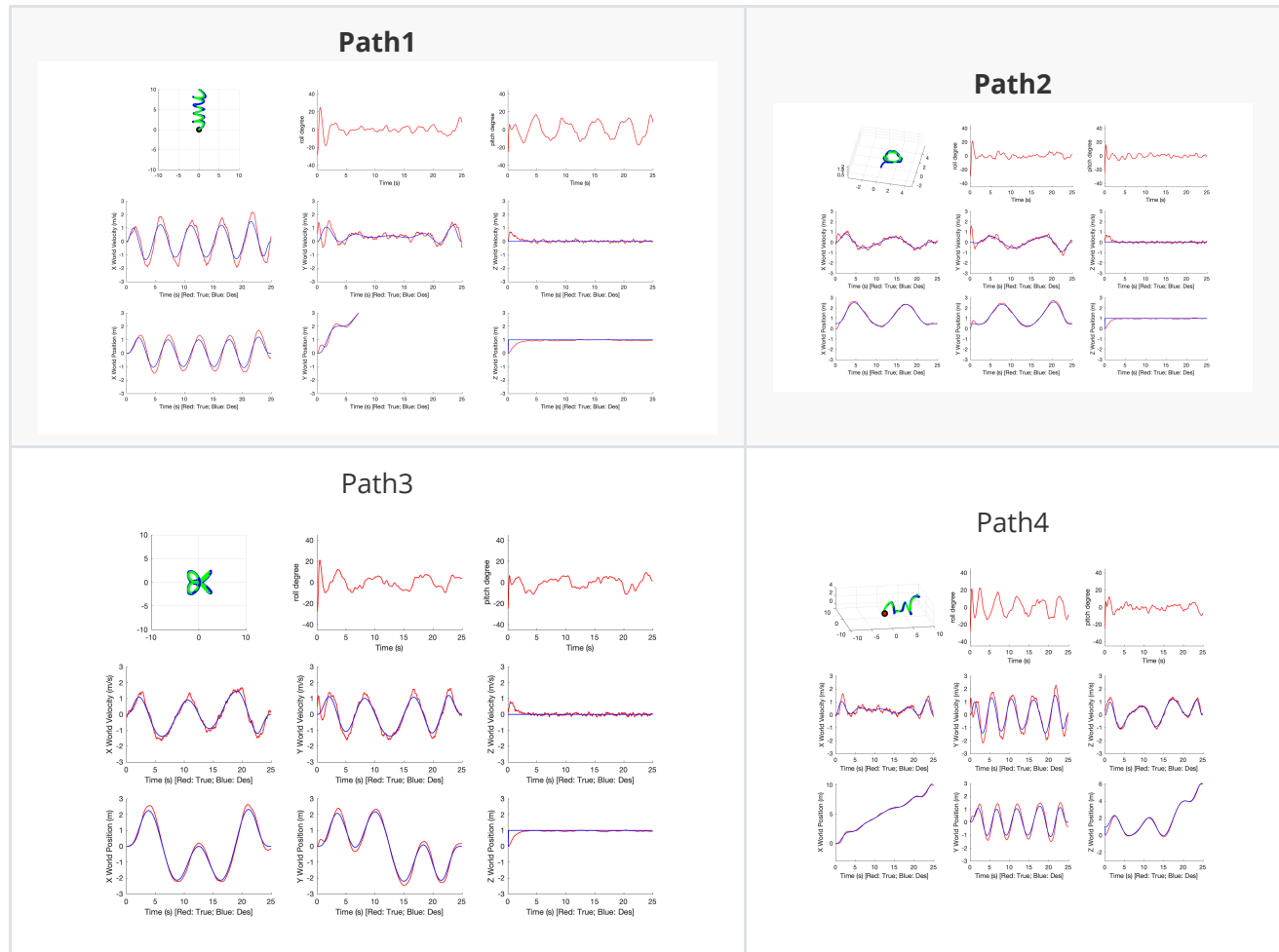
Statistics about your controller

RMSE	x	y	z	v_x	v_y	v_z	ω_ϕ	ω_θ	ω_ψ
Path1	0.2750	0.1404	0.1767	0.3912	0.2963	0.1440	0.3999	0.3359	0.2878
Path2	0.2234	0.2293	0.1873	0.3548	0.4625	0.1475	0.4086	0.3693	0.3071
Path3	0.1767	0.1920	0.1674	0.1962	0.2714	0.1524	0.3674	0.2666	0.2864
Path4	0.1009	0.2946	0.2098	0.1889	0.4550	0.1647	0.4297	0.2625	0.2878

Analysis of your results

In general, the controller could follow different trajectories when time intervals between waypoints are not too short. Since ths controller can't respond to instant changes in states, the time interval is set to spread out the total 25 seconds. Such that the quadrotor could follow the planned trajectory without blowing out.

Any other things we should be aware of

The method of minimum snap trajectory generator is implemented here using constrained QP. The continuity and derivative constraints are imposed up to the jerk level, instead of the snap level as the snap may not be continous.