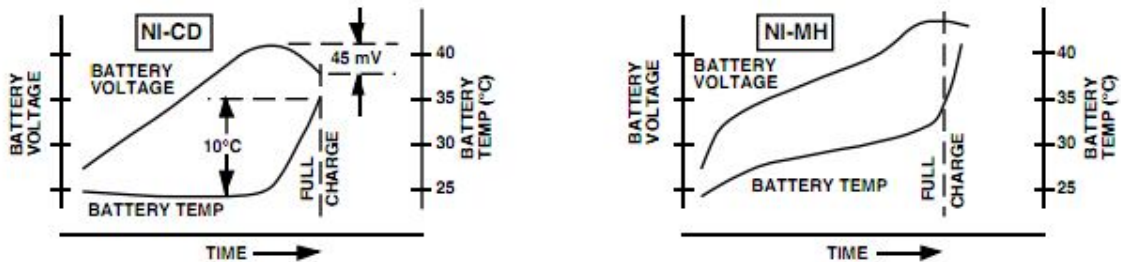


Battery Sizing Considerations

	NiMH	NiCd
Capacity (mAh)	1100-3000	500-1000
Energy Density (Wh/L)	140-300	50-150
Service Life (Figures from manufacturers)	Up to 1000 Cycles	Up to 750 Cycles



NiCd and NiMH voltage and temperature for 1C charge rate.

NiMH batteries are newer than NiCd batteries and are rapidly replacing NiCd batteries in consumer electronics. NiMH batteries are more environmentally friendly than NiCd batteries because they do not produce a toxic substance as they degrade. NiCd batteries have a longer shelf life as the self discharging rate for NiMH batteries is larger; however for our application this has little effect. For these reasons and because NiMH batteries are cheaper than NiCd batteries, we have chosen to move forward using NiMH batteries. To satisfy our customer's needs we will use five AA cells; two for the fan and three for the auxiliary devices. However, as we move forward we must keep in mind that overcharging can make the NiMH battery volatile so we might possibly need to implement an intelligent charging system.