

Designing a Low-cost, Light-weight Electric Snowmobile

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The Indiana University-Purdue University, Indianapolis Jaguar team is participating in the 2015 SAE Clean Snowmobile Challenge (CSC) with the aim of achieving a low-cost snowmobile that weigh less than 200 kg (441 lb). It was re-engineered to be an environmental friendly snowmobile without forgetting to improve the towing capability and less noise. We are using the Phantom Snowmobile PD250LT that is manufactured by FMC Motor Company and sold through out North America. The modified NetGain WarP 7 DC-series motor is connected directly to the sprocket shaft using a Goodyear Synchronous Belt. The belt itself is very quiet and can produce less than 59 dB.

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