

JVN-DesignCalc.20110111 [Compatibility Mode] - Microsoft Excel non-commercial use

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Drivetrain Ratios - Individual Stages & Overall Gearing

General Reductions:

	Driving Gear	Driven Gear	Reduction
Stage 1	12	56	0.2143
Stage 2	12	22	0.5455
Stage 3	1	1	1.0000
Stage 4	1	1	1.0000
Stage 5	1	1	1.0000

Overall Gear Reduction	
0.1169	8.6 : 1

Gearbox & Drivetrain Outputs

Gearbox - General Outputs		
Max Speed (ft/s)	Max Wheel RPM	Wheel Stall Torque (N*m)
13.16	502.73	37.42

8.6 : 1

Output @ Max Continuous Load			
Robot Max Pushing Force (lbs)	Motor Torque Load (N*m)	Current Draw per Motor (Amp)	Total Drivetrain Current Draw (Amp)
168.00	1.85	101.84	407.35

Specs 1-Speed Drivetrain 2-Speed Drivetrain Rotary Mechanism Linear Mechanism Intake Mechanism

Ready 85% 10:01 PM 5/10/2011