

Introduction



The entire mechanical side of the drive system consists of 4 main subsystems, the suspension, turning system, the motor subassembly and finally the wheels themselves. The Drivetrain was design and developed in conjunction with the PD&D (Product Design and Development) minor project. With this, a report was also made where most (but not all) design rational exists. It mainly focuses on the wheel and motor subassembly design, rational, and performance validation through simulation. The suspension and the turning system is the secondary focus on the report due to time constraints and also not wanting the report to be too long. This can be found in the following location:

G:\Shared drives\RoboTeam Twente Main Drive\RTT2025-2026\04. Subteams\08. Minor Assignment\Reports 2025-2026.

or alternatily through this link:

[Design and Development of a Rover Drivetrain](#)

NOTE: The current rover assembly uses the old motor subassembly as this was a last minute change due to motor suppliers, and changing the entire assmebly is quite some work as it requires wierd SOLIDWORKS mirroring features that do not play nice with ISO components like, nuts, bolts,

gears, etc.

Revision #11

Created 2026-07-20 15:21:38 UTC by Ludwig Franz Kumpf

Updated 2026-07-28 14:19:29 UTC by Ludwig Franz Kumpf