

ACME Universal Reconfigurable Robotic Chassis Specifications

- S000 The chassis is a circle of diameter sixteen [16] inches comprised of 1/8" aluminum.
- S001 A drive train assembly is mounted on a line bisecting the circular chassis.
- S002 Useful payload for the chassis is twenty [20] pounds.
- S003 The drive train is comprised of two [2] wheel assemblies [wheels six [6] inches diameter, one [1] inch wide] separated on the bisecting line by twelve [12] inches to the center of each drive wheel.
- S004 Drive wheels are uncoupled. A reversible geared DC permanent magnet motor assembly drives each.
- S005 An unloaded drive assembly rotates a wheel at fifty-five [55] RPMs when a twelve [12] volt DC source is applied. Under these conditions the motor draws 1.6 amps.
- S006 The platform is not expected to balance on the drive wheels. Two [2] swivel castors mounted fore and aft of the driveline are utilized to keep the platform level.
- S007 Drive assemblies utilize approximately fifty [50] percent of the available chassis real estate.
- S008 Clearance from chassis bottom to the ground is approximately one and one half [1.5] inches.
- S009 Duty cycle for the motors TBD.