



A Small Change Makes a Big Difference!

Power and Agility, Speed and Control.

½" of vertical movement on the rear wheels triples the wheel base.

Stance is automatically adjusted according to driver steering input.

Independent Left and Right actuations.

Real-time dynamic ride control

Small Movement – Big Change

Short Wheel Base Mode

Piston Extended

End 2 sets of
wheels elevated

10"

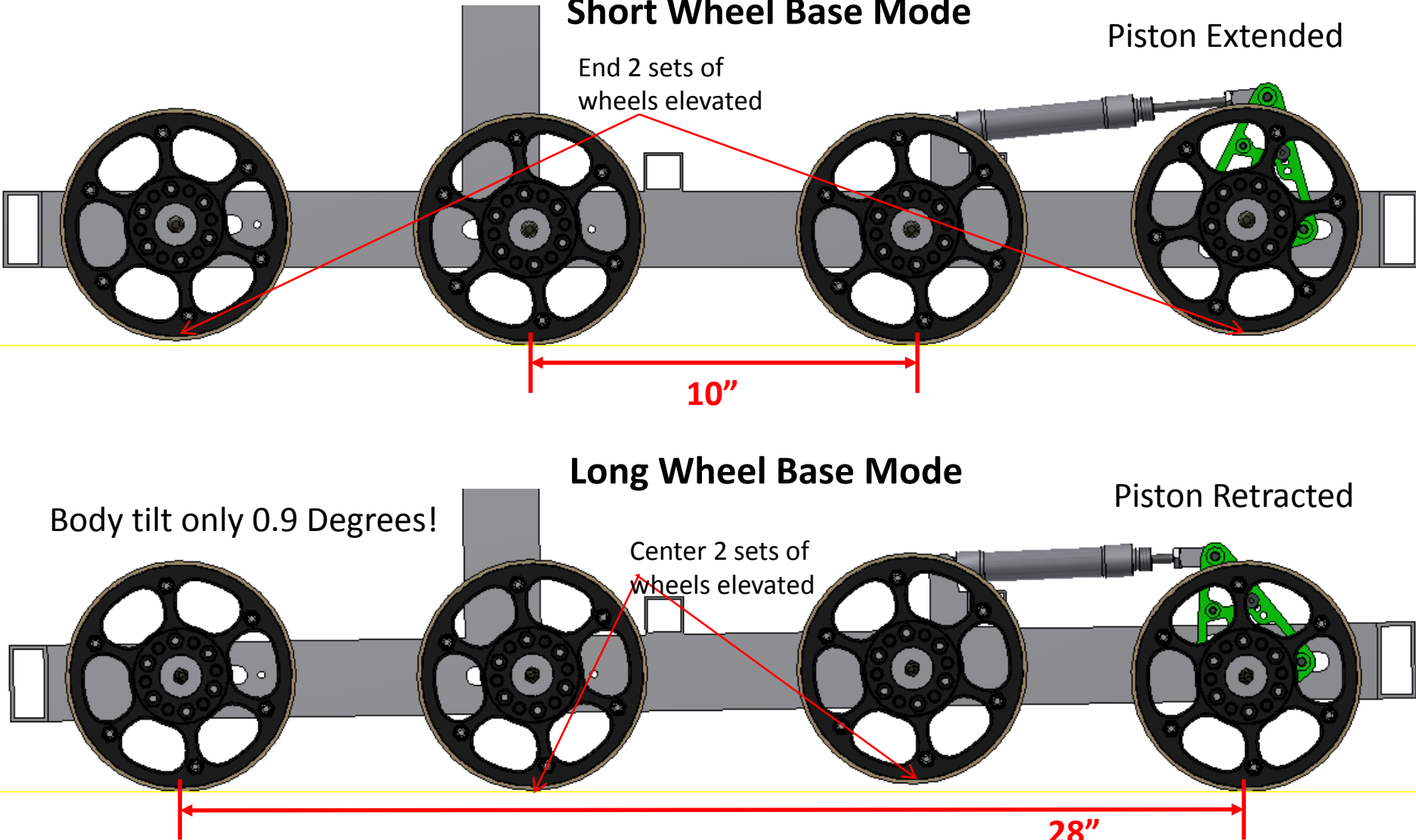
Long Wheel Base Mode

Piston Retracted

Body tilt only 0.9 Degrees!

Center 2 sets of
wheels elevated

28"

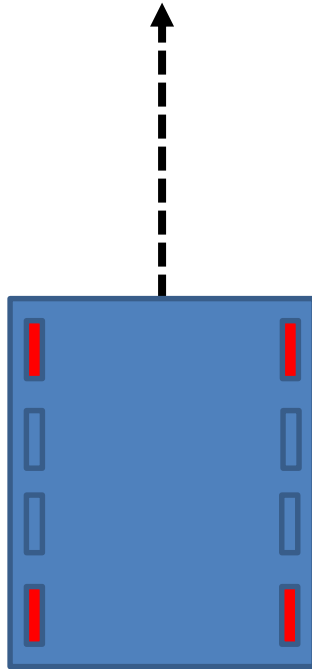


Three Steering Modes:

Fully automated control based upon driver steering input.

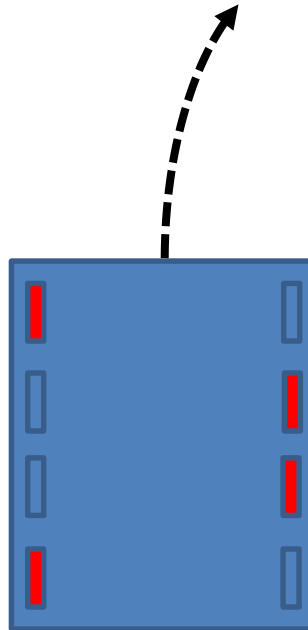
Dynamic speed dependent thresholds for mode changes.

20 millisecond transition time between modes.



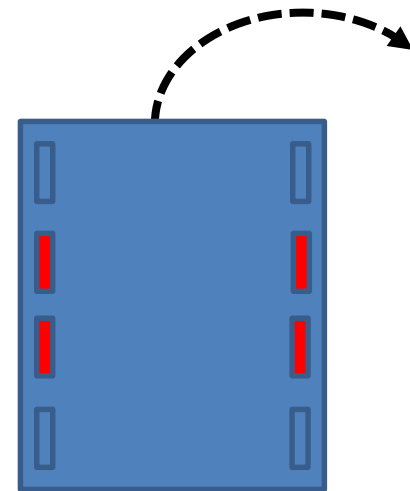
1. Straight Motion

All four corner wheels are down to maximize stance and longitudinal stability.



2. Shallow Turn

Inside set of wheels is retracted to reduce lateral scrub and improve turning



3. Aggressive Turn

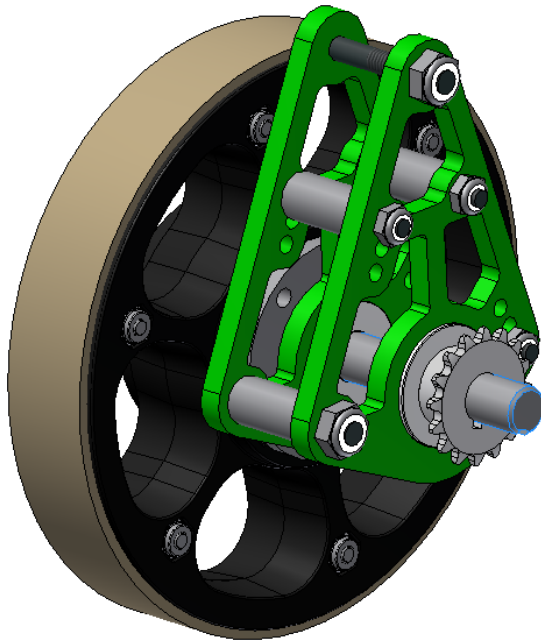
Both sets of wheels retracted to minimize wheel base for rapid turning maneuvers

Simple, Yet Effective:

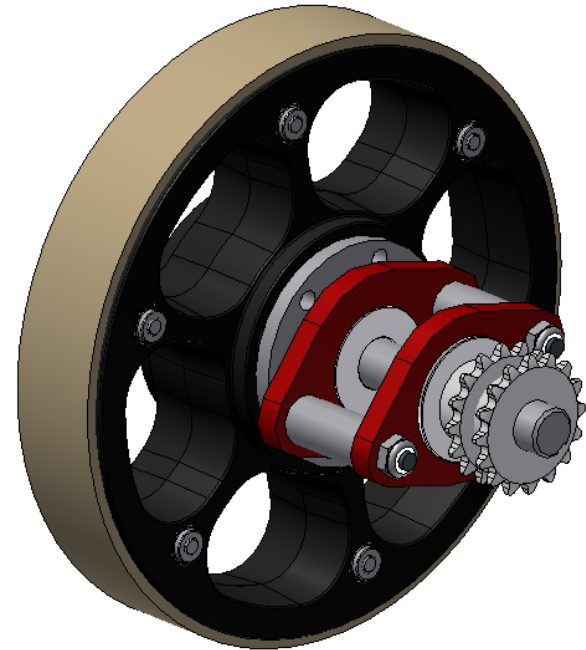
Easy-to-Build, Lightweight, Compact Cantilever Axle Design.

Two simple plate-work assemblies.

Built in chain tensioning system.



Cantilever Axle with Pivot Fork
2 assemblies per Robot



Fixed Cantilever Axle
6 assemblies per Robot