



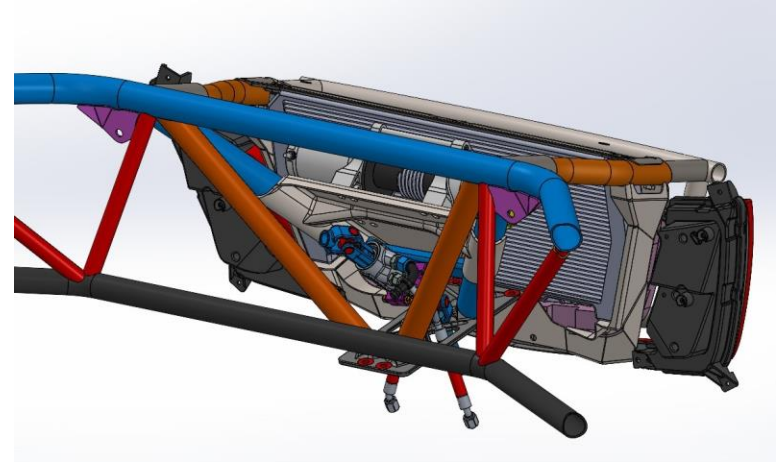
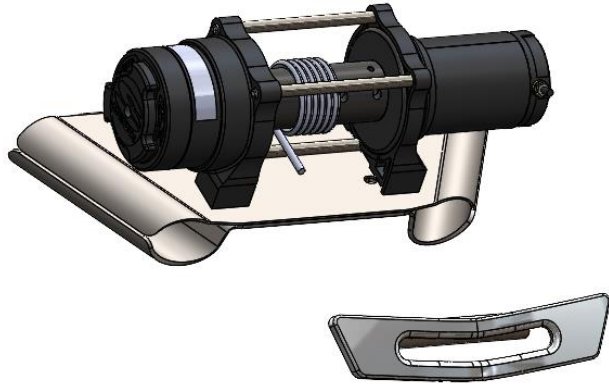
ROBBY GORDON – TODD ROMANO

DANIEL GRANGER – KYLE SWOBODA

Design Presentation: 41

FOR PUBLIC RELEASE: 1/2/2021





Winch Kit,

- Mounts to chassis tubes (Bolt-in)
- Has a roller and fairlead to re-direct cable down low for optimum pull angle.

We had everyone from the speed team sit in the seats to determine which was the best fit. Then, took measurements to create this guide to help you decide.

Seats will be available at select dealerships in the coming weeks for in person fitment.



**Good luck to those
competing in the Dakar
Rally 2021!**



**The Hummer that Robby Designed
and raced in Darak rally from 2006-
2013
Is competing again this year. Qualified
P13 on day one.**



First Win



Third Win

19 years ago, and in memory of our fallen families and first responders, Robby Gordon and Richard Childress presented a check for \$203,924 to the Uniformed Firefighters Association's Widows and Children's Fund. Gordon captured his first Nascar Winston Cup win, and the #31 team donated the money earned from their victory at the season-ending NASCAR race in Loudon, New Hampshire.

\$125 DONATION

9/11 NEVER FORGET FUNDRAISER GIVE AWAY



SPONSORED BY SPEED UTV, ROBBY GORDON, AND TODD ROMANO

Thank you to everyone
who has contributed to
the fund raiser.

The Draw will take place
LIVE at 9:11 pm EST

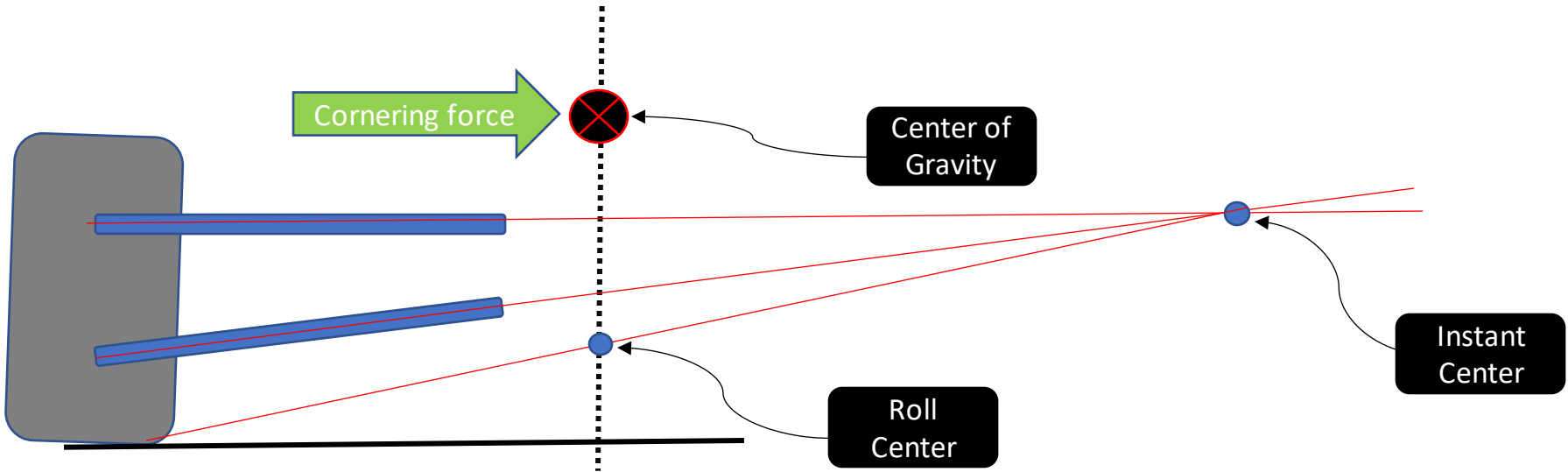
<https://www.instagram.com/reel/CJW01auBnzv/?igshid=t4hjvaab5zs3>



syntheticsexcel Is there a way to add weights on the axles or external wheel weights to make these less top heavy or are people just lifting them too much ? See this all the time

Q: What causes other side by sides to roll over so easily?

A: In short, it is a narrow track width coupled with a high center of gravity and a fundamentally compromised suspension design (high roll center); which we will explore in more detail now.



The Roll Center is an imaginary point that the body of the vehicle rolls about.

The lateral forces acting on the CG of the car are translated to the chassis through a moment passing through the roll center.

Source: Milliken & Milliken *Race Car Vehicle Dynamics*,
Suspension Geometry
Section 17.6

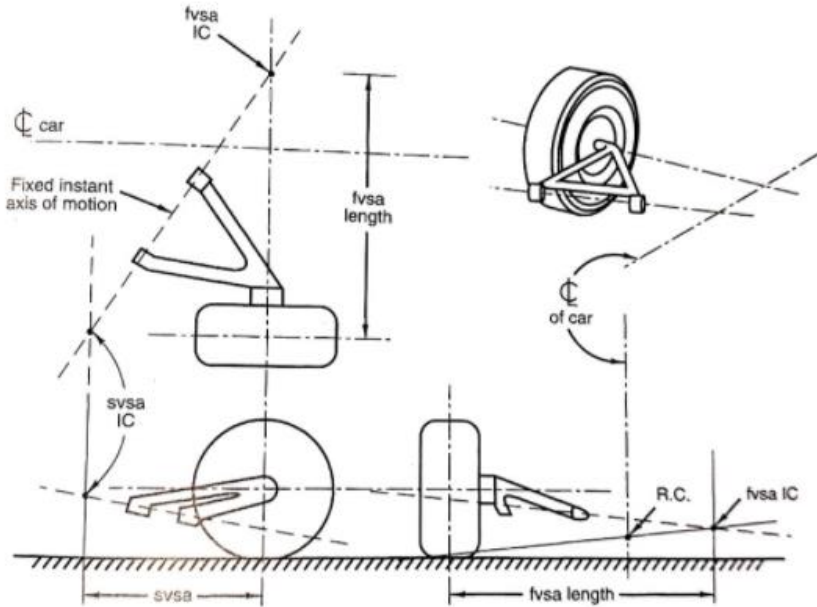


Figure 17.25 Semi-trailing arm rear suspension.

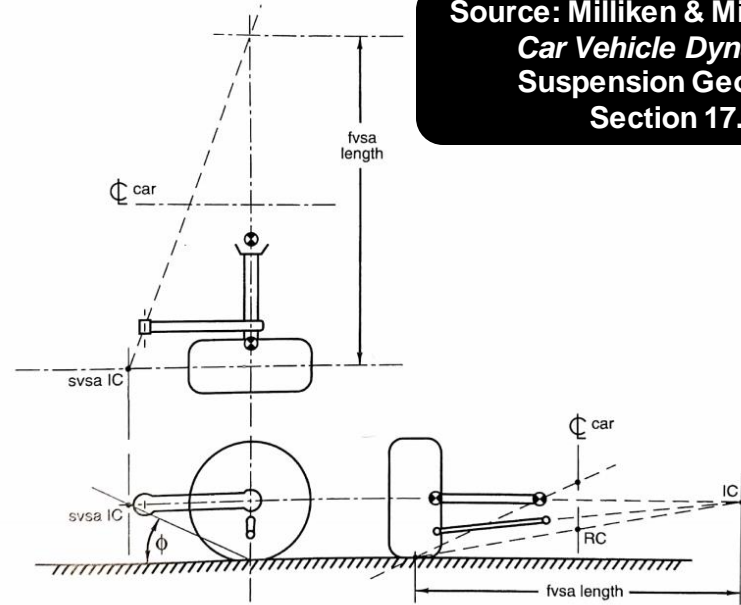


Figure 17.27 Pre-84 Corvette rear suspension.

**Speed UTV Trailing
arm type**

**RZR/CanAm Trailing
arm type**

Radius Rod Style
UTV suspension
inherently have a
higher roll center

Polaris RZR Rear
Roll Center: ~13"



Radius Rod Style
UTV suspension
inherently have a
higher roll center

Gets especially bad
when suspension
droops out or ride
height is increased

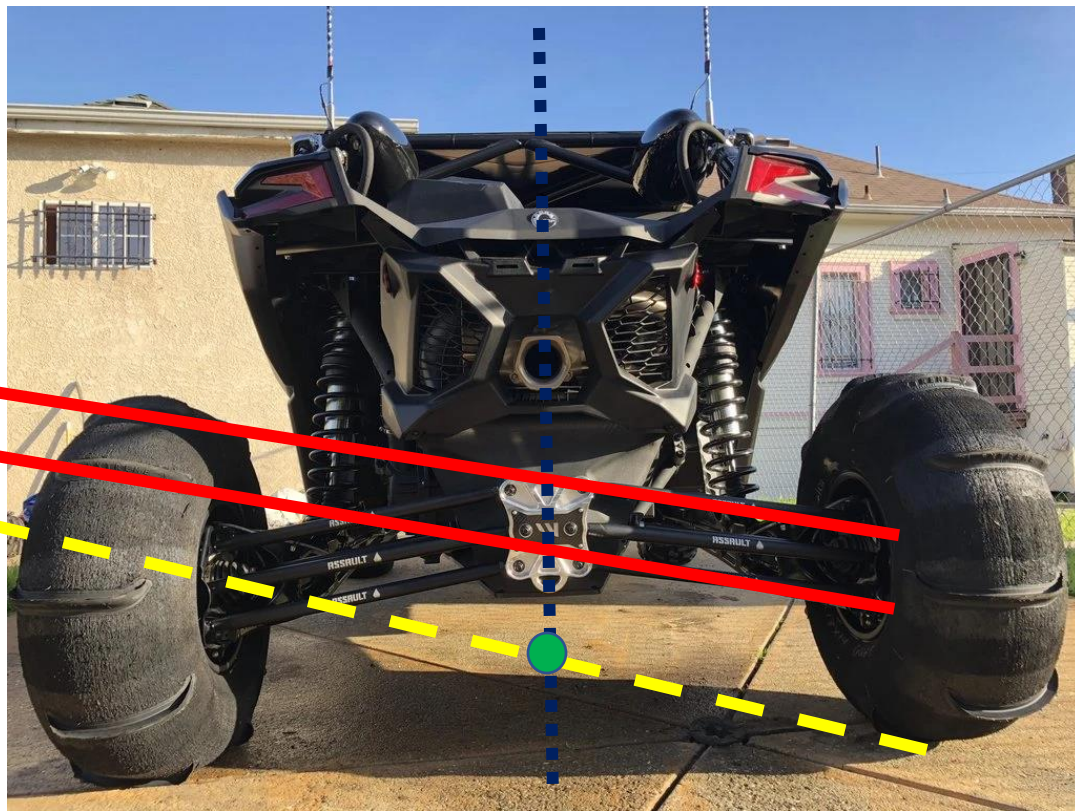
With ~2" Lift

Polaris RZR Rear
Roll Center: ~16-18"



Radius Rod Style
UTV suspension
inherently have a
higher roll center

Can Am Rear Roll
Center: ~10"



Radius Rod Style
UTV suspension
inherently have a
higher roll center

Gets especially bad
when suspension
droops out or ride
height is increased

Can Am Rear Roll
Center: ~24" @Droop

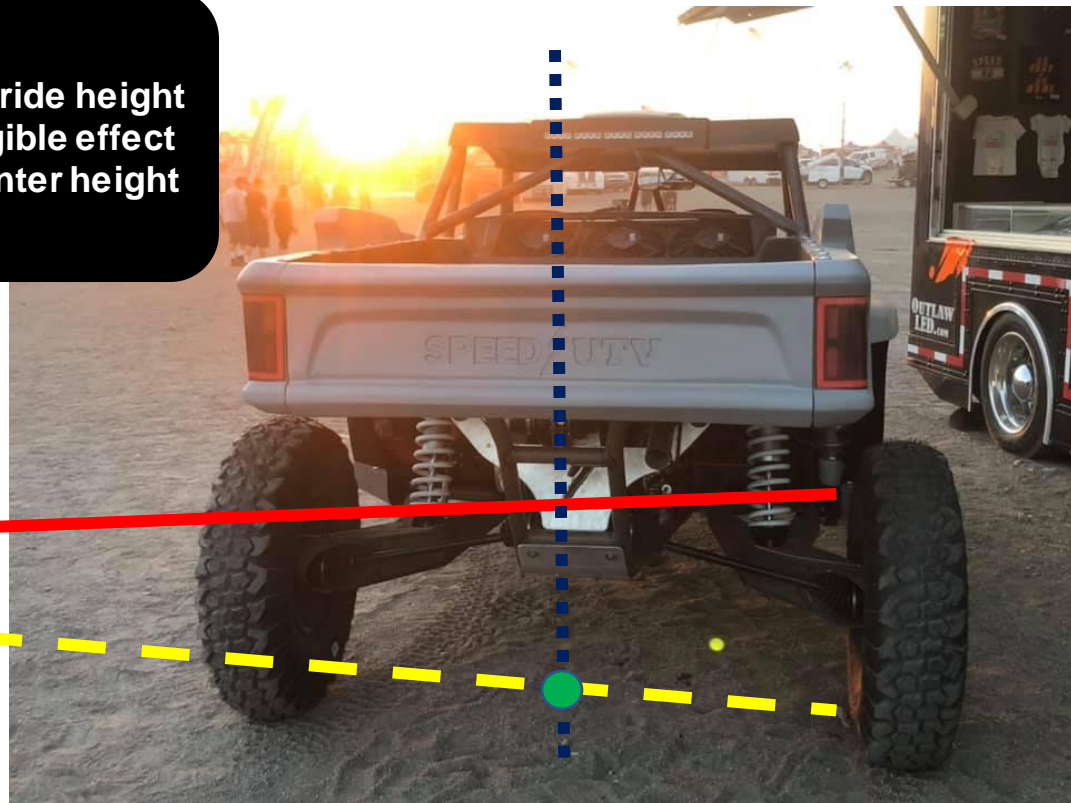
Track change is also
especially bad (was
72" now ~62")



True "Semi-Trailing arm" type suspension can have a significantly lower roll center

Change in ride height has negligible effect on Roll center height

Speed UTV Rear Roll Center: ~2.5"



True "Semi-Trailing arm" type suspension can have a significantly lower roll center

Change in ride height has negligible effect on Roll center height

Speed UTV Rear Roll Center: ~2.5"

Track change is essentially none



D. During turn-in the roll center heights determine the proportion of the load that is passed through the suspension linkage. The rest of the load transfer is passed through the springs and anti-roll bar as the vehicle rolls. A high roll center leads to jacking (the whole car raises as lateral load is applied) and lateral wheel travel on bump (track width change); these are undesirable

G. Rough road tracking will be best when the suspension contributes the minimum disturbance to the vehicle. Roll centers near the ground give low lateral wheel motion with ride travel and minimize lateral "shake" on rough roads.

Source: Milliken & Milliken *Race Car Vehicle Dynamics*, Chassis Set-up Section 12.3 p. 403



<https://www.instagram.com/p/CIHhKHLhJVj/>



<https://www.instagram.com/p/CHbaMvrBUaQ/>

So what does this mean?

The Speed UTV will handle better because:

- Less track width change means less bouncing from side to side (and scrubbing speed).
- When turning, the outside wheel is loaded in a corner, the car will squat down and lowers ther CG instead of raising up and flipping over.



<https://www.instagram.com/p/B7C2J6OhRzd/>



<https://www.instagram.com/p/CHwKikKhq2J/>

SPEED UTV – SPEED TOOLS



Almost Sold Out!
Get yours at
SpeedToolsInc.com

SPEEDRC CARS



NOW AVAILABLE AT THE FOLLOWING NAPA LOCATIONS

Store Locations

Addresses

Group #1- San Diego Area

Alpine - 230	1347 Tavern Rd Ste 6-7, Alpine, CA 91901
El Cajon - 212	1597 N Johnson Ave, El Cajon, CA 92020
El Cajon Broadway - 209	1235 Broadway, El Cajon, CA 92021
Lakeside - 200	12244 Woodside Ave, Lakeside, CA 92040
Jamul - 674	13881 Campo Rd, Jamul, CA 91935

Group #2 - Desert Area

Holtville	227 E 5th St, Holtville, CA 92250
Calexico	839 Emerson Ave, Calexico, CA 92231
Calipatria	235 Main St, Calipatria, CA 92233
Brawley	1045 Main St, Brawley, CA 92227
Imperial	200 N Imperial Ave, Imperial, CA 92251



Live Call in:
704-949-1255

SPEED  **UTV**



**5th Callers gets a NAPA
Speed RC Car**