Rear Suspension - Upright

**Mounting Brackets:**
interchangeable mounting brackets for adjustable suspension geometry

**Upright Body:**
aluminum body provides rigid connection to suspension linkages

**Wheel Bearing:**
connects upright to wheel for smooth rotation

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**Total Weight:** 3.7 lbs

**Manufacturing Techniques:** 3-axis mill, waterjet, welding
**Steering Subsystem**

- **Steering Column**: connects through U-joint to steering wheel.
- **Steering Stops**: prevents CV joint breaks by limiting steering angle.
- **Long Steering Clevises**: limits toe change through bump travel.
- **Steering Mount**: connects steering rack to chassis.

**Total Weight**: 12 lbs

**Steering Rotation Lock-to-Lock**: 400°

**Steering Articulation**: 80°
Front Suspension

Shock Absorber: absorbs impact force from ground

Upper Control Arm: supports shock absorber and connects upright to chassis

CV Axle: transmits power from driveshaft to wheel

Tie Rod: connects steering rack to wheel

Lower Control Arm: works with upper control arm to prevent upright spinning

Upright: connects wheel to suspension components

Total Weight: 20.8 lbs
Suspension Travel: 11 in
Steering Articulation: 42° inside wheel, 38° outside wheel
Chassis Nodes

**Rear Roll Hoop:** primary chassis member

**Side Impact Member:** primary chassis member

**Node:** intersection of chassis members

**Moments:** current shock placement produces smaller moment on node

**Rear Suspension Shock Absorber:** transmits force from rear suspension