



SETUP MANUAL

Equipment Needed

QM890
Quarter Midget Alignment Kit



Tape Measure



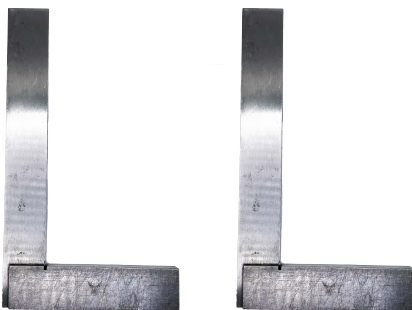
QM4329-B
Set Up Blocks



Angle Finder

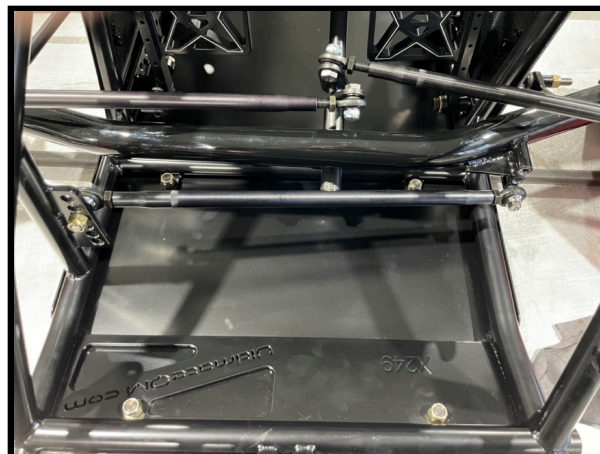


Two 90° Squares

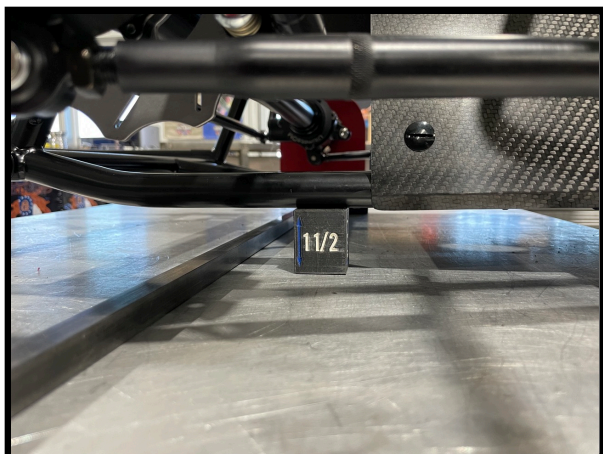


Setting Up

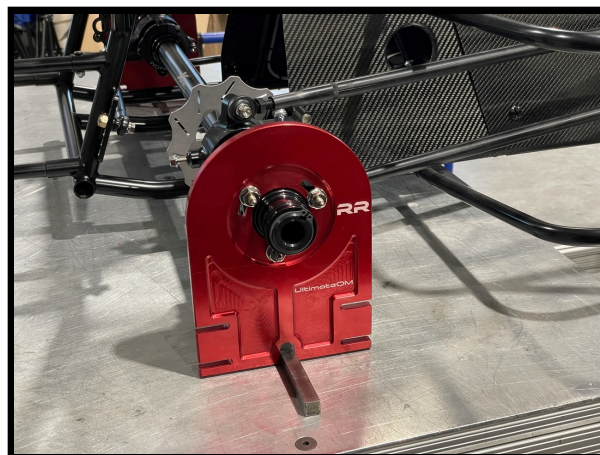
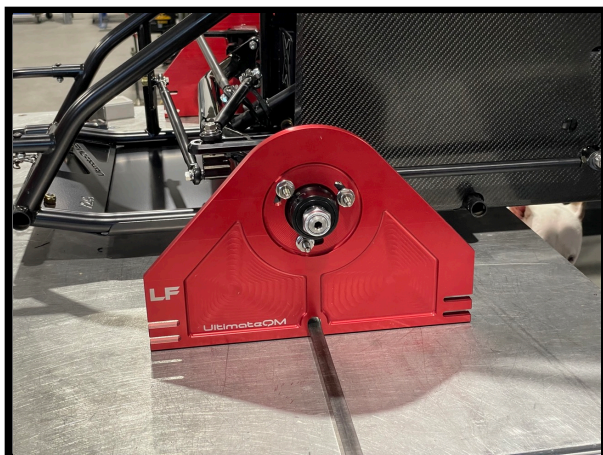
1. Set the Panhard bars to their locations indicated by the setup sheet before squaring the car.



2. Unhook the shocks and place ride height blocks on all four corners of the car at the heights the setup sheet says.

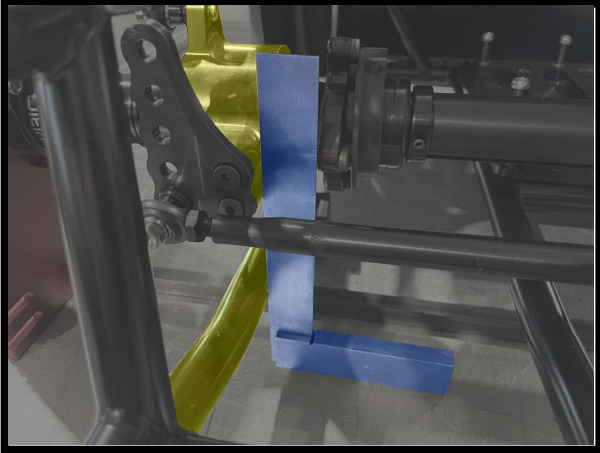


3. Install the Ultimate QM alignment plates in their correct positions and slide in the alignment bars. (If the rear plates will not sit flat you may need to remove the key from one of the rear hubs.)

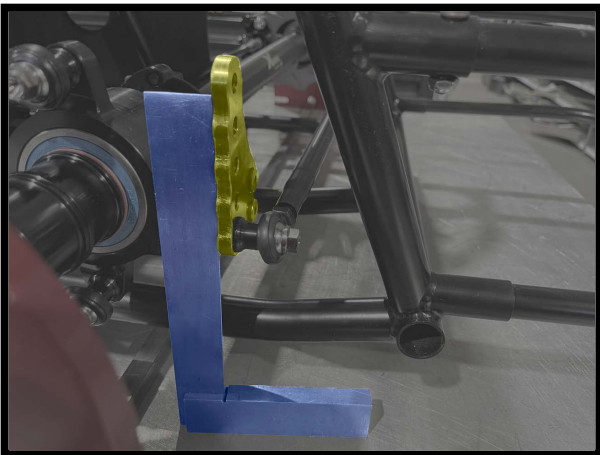


Squaring the Rear End

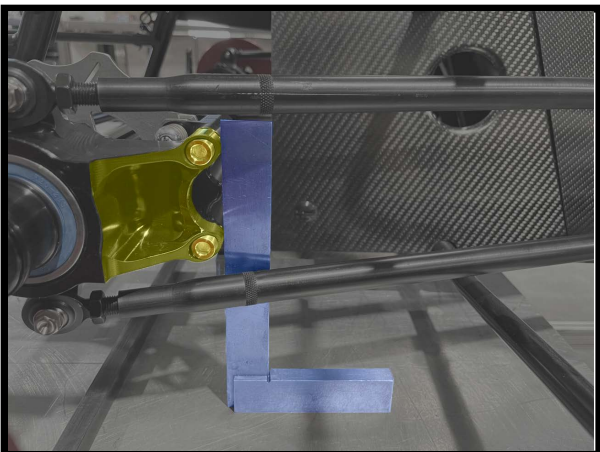
4. The first step of squaring the rear axle is to set its side-to-side position. The left-to-right placement of the rear axle is determined by the left rear birdcage. Using a 90° square align the inner edge of the birdcage with the inner edge of the left side frame rail by adjusting the length of the rear Panhard bar.



5. Once the axle is in the correct placement the birdcages need to be timed. Adjust the timing of the left rear birdcage by placing a 90° square against the birdcage panhard bracket and adjusting the left rear radius rods until the square sits flush against the bracket.

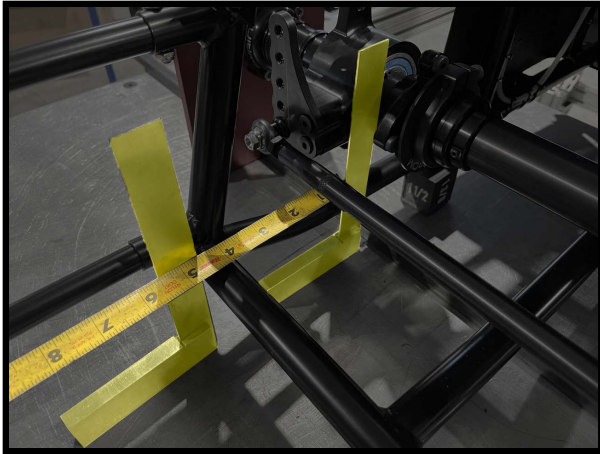


6. Adjust the timing of the right rear birdcage by placing the 90° square against the brake caliper mount and adjusting the right rear rods until the square sits flush.



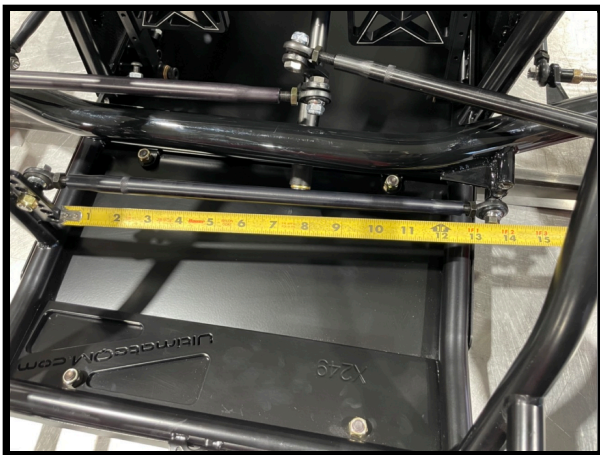


7. To set the distance of the rear axle from the rear cross tube, use two identical 90° squares and place one against the back of the axle and the other against the back of the cross tube. Take this measurement on both the left and right sides as far out on the cross tube as possible. The measurement should be 5.5" from the back of the axle square to the back of the cross tube square. (Make sure the birdcages stay timed correctly as this is adjusted.)



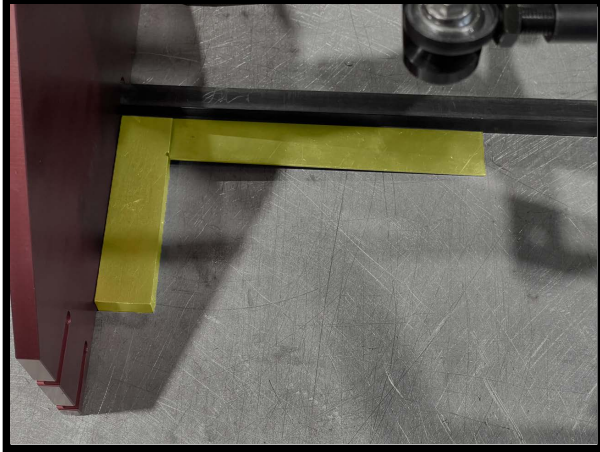
Squaring the Front Axle

8. Front axle placement is set by measuring the distance from the chassis tab to the center of the bolt on the axle mount. Adjust the front panhard to match the setup sheet. (The tape measure should be held level when taking this measurement.)





9. Place a 90° square on both the left and right front against the alignment rod and plates. Adjust the tie rods to make the square sit flush against the rod and the plate on each side to set the toe.



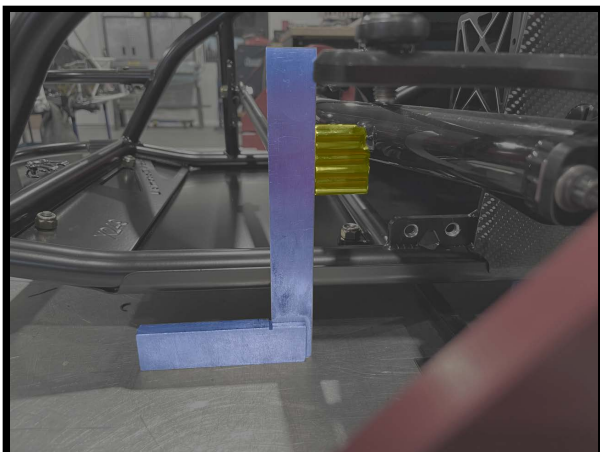
10. Once the toe is set measure the front alignment rod to the rear alignment rod on both sides to check the wheelbase. Adjust the right and left front tie rods to set the wheelbase to the proper measurement. (Make sure to keep the toe square as the wheelbase is adjusted.)

Wheelbase

Mini-	47.5"
Small-	48.5"
78"-	49"
80"-	51"

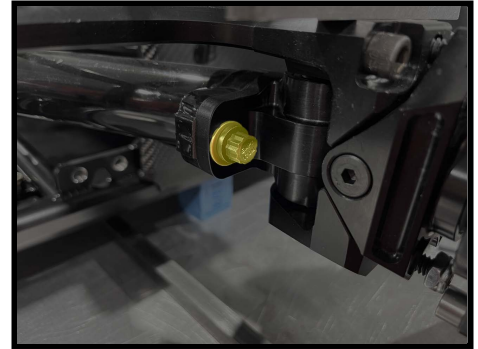
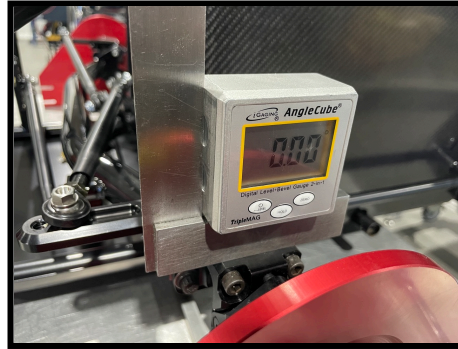
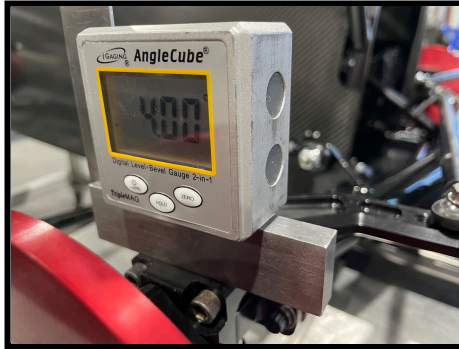


11. To set the front axle timing take a 90° square to the left front and line it up with the axle side panhard bracket. Adjust the right front tie rods to tip the panhard mount so that it lines up with the square. (The wheelbase measurement may need to be readjusted on both sides after changing timing.)

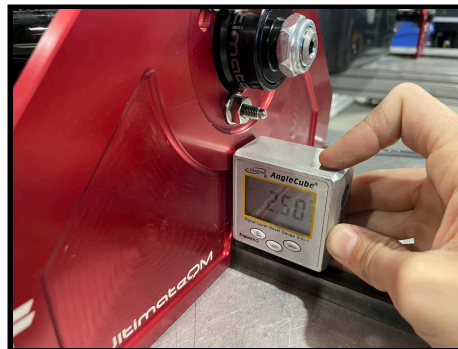
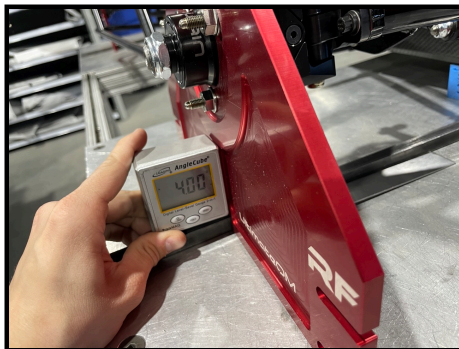


Setting the Front End

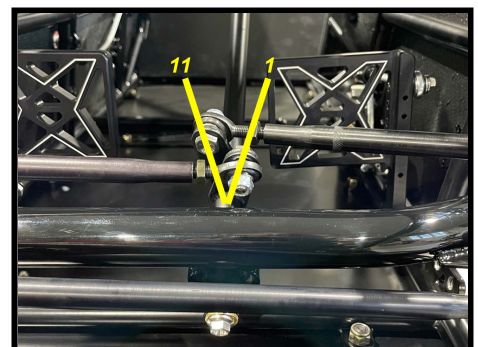
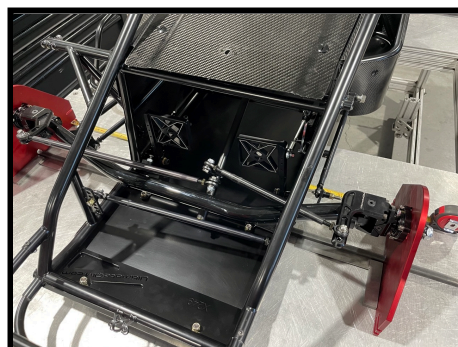
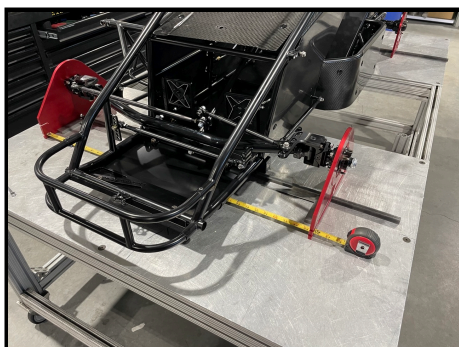
12. To set the caster first make sure the toe is set, then place an angle finder on top of a 90° square and put it on top of the spindle. The right should measure 4.0° of caster leaning back, and the left should be 0.0°. To adjust the caster, loosen the 5/16" 12-point bolts that connect the spindle to the axle, tip the spindle to the proper angle, and tighten the bolts.



13. To set the camber place the angle finder flat on the outside of the setup plate. The right front should measure -4.0° and the left front should measure +2.5°. To adjust the camber, loosen the 7/16" jam nuts located on the 1/8" set screws and adjust the set screws to get the plate to the desired angle. For example, to add negative camber to the right front loosen the top set screw and tighten the bottom set screw to increase the angle of the plate. (The set screws only need to be snug, don't over-tighten them, the jam nuts should be tight.)



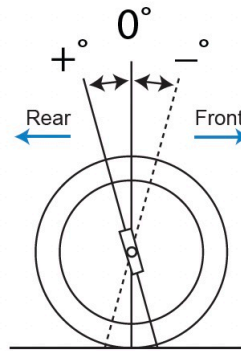
14. The final step is to accurately set the toe. Use a tape measure to measure from the right front plate to the left front plate through the lower slots on the front and rear of the plate. Adjust the steering rods to make the front and rear measure the same. (Also adjust your steering rods so that the pitman arms on the steering shaft are at the 11 and 1 position.)



Technical Info

Caster Angle

Caster is the inclination of the steering axis from vertical in the longitudinal plane (wheel viewed from the side). Positive caster is achieved when the steering axis is inclined toward the rear of the vehicle at the top in the side view. Negative caster is when the steering axis is inclined toward the front of the vehicle at the top in the side view.



Camber Angle

Camber is defined as the inward or outward tilt of a wheel at the top relative to vertical at the center of the wheel in the lateral plane. If the top of the tire is leaning inward toward the center of the car (viewed from the front of the vehicle), the tire has negative camber. If the top of the tire is leaning outward, it has positive camber.

