

## LOWER CONTROL ARMS

542-05-2205	Ultra Series EK Lower Control Arm Clear	\$312.99
542-05-2295	Ultra Series EK Lower Control Arm Black	\$312.99
542-05-2105	Ultra Series EG Lower Control Arm Clear	\$312.99
542-05-2110	Ultra Series EG Lower Control Arm Gold	\$312.99
542-05-2195	Ultra Series EG Lower Control Arm Black	\$312.99
542-99-0100	Spherical Bearing Upgrade - sold as a pair	\$108.99
542-05-1205	Alpha Series EK Lower Control Arm Clear	\$207.99
542-05-1210	Alpha Series EK Lower Control Arm Gold	\$207.99
542-05-1295	Alpha Series EK Lower Control Arm Black	\$207.99
542-05-1105	Alpha Series EG Lower Control Arm Clear	\$207.99
542-05-1110	Alpha Series EG Lower Control Arm Gold	\$207.99
542-05-1195	Alpha Series EG Lower Control Arm Black	\$207.99



Optional inboard spherical bearing upgrade available pictured (for Ultra LCAs only)



542-05-2295 Ultra Series EK Lower Control Arm Black



542-05-1205 Alpha Series EK Lower Control Arm Clear

### ULTRA LCA

- CNC Machined from Forged 7075 Aluminum
- 44% lighter than OEM arms
- 19% EG / 24% EK lighter than original S2 LCA design
- 27% EG / 49% EK stronger than original S2 LCA design
- Outboard Spherical Bearing to reduce bushing twist
- Tuned Polyurethane Inboard Bushing to dampen NVH
- Delrin Shock Mount Bushings for improved shock performance
- Optional Inboard Spherical Bearing Upgrade Available

### ALPHA LCA

- CNC Machined from Forged 6061 Aluminum
- 40% lighter than OEM arms
- 15% EG / 19% EK lighter than original S2 LCA design
- 7% EG / 11% EK stronger than original S2 LCA design
- Outboard Spherical Bearing to reduce bushing twist
- Tuned Polyurethane Inboard Bushing to dampen NVH
- Delrin Shock Mount Bushings for improved shock performance

Skunk2 Ultra and Alpha Rear Lower Control Arms are direct replacements for the factory OEM arms, and are ideal for street and race applications. Benchmarking off of our previous LCA design, our goal was to design an arm that was lighter, stronger, and more durable without increased noise, vibration, or harshness (NVH). The inboard bushing features a large tuned durometer elastomeric bushing, that is hard enough for improved handling performance yet compliant enough to minimize unwanted increase in NVH, while the lower shock mount utilizes Delrin bushings for reduced friction and minimal deflection for improved dynamic shock control. For improved bushing life, the latest materials were used, and a high-precision spherical bearing on the trailing arm side was utilized to reduce twist at the inboard bushing. Even though a second spherical bearing for the inboard pick up point is offered as a racing upgrade, we chose to use only one spherical bearing to minimize unwanted increases in NVH for street use. By using this specific combination of bushings, handling performance and control is improved significantly without compromising NVH or comfort.

## { ENGINEERING 101 }

### TECHNOLOGY – FORM DEFINED BY FUNCTION

It is essential in the design of a great LCA that weight is kept to a minimum, but strength and performance are optimized. To create the new industry standard LCA design, the Skunk2 engineering team took a unique and revolutionary approach. The conventional method for creating an LCA is to use Finite Element Analysis (FEA) to analyze the structural efficiency of a design concept AFTER it is already 3D modeled in the computer. Instead, our team applied simulated load inputs on a simple LCA 3D model then utilized special FEA software that generated a proposed material layout and structural concept that was optimized for both strength and weight. In essence, the new LCA design concept was purely a byproduct of the strength and functional requirements of the part. Even design details such as the 'Xs' were driven entirely by engineering analysis and not arbitrary design decisions. Using the results as our guideline, we then designed and modeled a part that was manufacturable using CNC machines. The final outcome was phenomenal. Depending on the application, the new Skunk2 LCAs are 15 to 24% lighter and 7 to 49% stronger when compared to the original Skunk2 LCA design.

