



Honorable Mentions



Swing Arm for an Unmanned Military Vehicle Aristo Cast Inc., Almont, Michigan

Metal: A356 aluminum with T6 heat treatment.

Casting Process: Investment casting/rapid prototype.

Weight: 9 lbs.

Dimensions: 27.5 x 5 x 9.5 in.

Application: Attaches wheels to an unmanned military vehicle.

- ◆ The component is used as an attachment point for the wheels on an unmanned observation vehicle for the military. The casting is designed to rotate 180 degrees so the vehicle can right itself if it were to tip over.
- ◆ The metalcasting facility produced this 9-lb., 27.5-in. long aluminum component completely via rapid prototyping and was able to achieve a tolerance of +/-0.03 in. in 27 in. The overall wall thickness is 0.1 in. with sections as thin as 0.08 in.
- ◆ The component was produced from six individual wax patterns that were assembled together. It was produced from the inside out to achieve the necessary characteristics for the fins.
- ◆ The first two components were delivered 16 calendar days after the date of the order, and six more were delivered within 23 days from the order.