

# UNCONVENTIONAL AURORA

Jean-Pierre Beland | jp.beland.idinc@gmail.com

**THE INSPIRATION** for Jean-Pierre Beland's (Tampa, Florida) Aurora came from several pictures he found online after searching for "Aurora project" and "space plane." He started the project in August 2019.

Lowe's 3/4-inch Styrofoam sheet was reinforced with square wood sticks or carbon fiber. Jean-Pierre stated that the Styrofoam was easy to cut and sand, making it a perfect material from which to scratch-build airplanes. He covered it with Tower Hobbies TowerKote light covering film.

The wing (body side) is 37 inches wide and the body is 39 inches long. Jean-Pierre made the two rudders independently using two wooden rods to give it strength. He used 5-minute epoxy glue when a

strong bond was required.

Jean-Pierre chose a Dr. Mad Thrust 3,000 Kv 1,300-watt motor with a 10-blade, 70 mm fan, which is powered with a four-cell 50C 5,000 mAh LiPo battery and 80-amp ESC for flights of approximately 7 minutes. "The electronics are less complicated than one might think," he wrote.

The look was enhanced with bright LED lights in series to match the voltage of the motor leads wire (14.8 volts) at maximum throttle. "Technically, since the LED works only in one electron direction (+/-) of the current, the ESC output wires will power them the way they should half the time. Everything is so fast that you don't see the gaps. (The time when the LEDs are not lit is because of reverse current.) This is my



homemade afterburner effect. As I power the airplane, the afterburner effect kicks in brighter and brighter, matching power/throttle without an additional electronics module!"

An LED/chip arrangement was placed in the wingtips to flash with a 12- to 50-volt flasher unit to simulate a full-scale airplane's red and green lights.

The first flight was without wheels and the cover to adjust the battery location and find the proper center of gravity. Jean-Pierre wrote that he was lucky that he found it right away without a crash! On October 23, 2019, the final touches of front lights, wheels, and the top cover were completed.

The photo of Jean-Pierre proudly holding his creation was taken by his daughter, Franchesca Beland. His other projects can be viewed on YouTube by searching "rc jp beland."

"I hope that this article will inspire members to scratch-build airplanes that are more futuristic looking," he noted. "A big 'thank-you' to Patrick Sikorra, who has been my test pilot during most of my projects!" 



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