

Puget Sound Fast Electrics Model Boat Club

<http://members.tripod.com/psfastelectrics5/>



Ted's Aggressive "N1" Mono, Six Cell Stock, El Lobo II

Parts List

1. Bandit Boats El Lobo II <http://www.banditboats.com>
2. Custom tuned 27 turn, 05 motor <http://www.aggressiverctech.com>
3. Fuller's Fast Electric Hardware <http://www.drcwebservices.com/ffe/>

<u>Part name</u>	<u>Part numbers</u>
a. 05 motor mount	Fuller's
b. Hughley motor coupler .125 x .130	OCFHE1813
c. Hughley .125 flex shaft	OC4PS/OC130L-24A
d. .125 drive dog	OC4D
e. .130 teflon tube drive shaft liner	OC130T-24
f. 7/32 brass drive shaft tubing	K&S
g. 2" strut bracket	Fuller's
h. Strut for .130 cable	Fuller's
i. "L" offset rudder arm bracket	Fuller's
j. Blade rudder	Fuller's
k. Rudder steering arm	Fuller's
l. Stainless steel turn fin and bracket	Fuller's
m. Dubro pushrod 12" Kwik Link	DUB 108
n. Rubber boot assembly	Bru Line 100
o. Speed Control www.RC-Hydros.com	PG-612/60WBEC

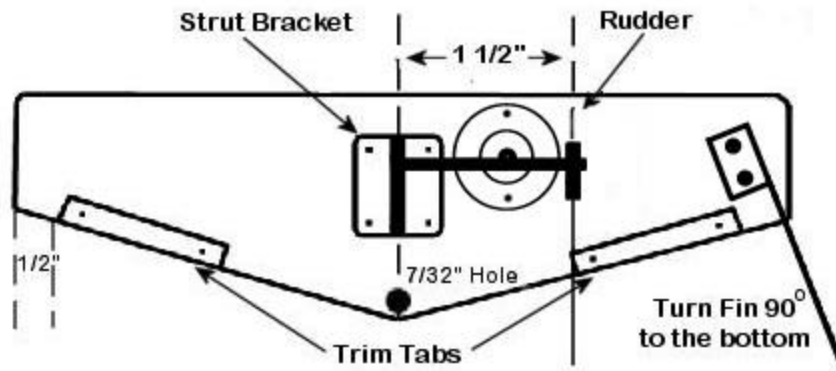
4. Misc. parts: many items can be found at your local hobby shop
 - a. Antenna mount Hayes #185
 - b. Octura Y534 or X435 prop OCTY534/OCTX435
 - c. Octura Prop tail nut OC4PN
 - d. Lead/Teflon Sleeve bearings for strut OC4LTS
 - e. Thrust washer set for drive shaft OC4TW
 - f. 2" wide Velcro from **Home Depot** 90593

Basic Set-up for the El Lobo II

You can buy the running gear as individual pieces or purchase a hardware kit from Ray Fuller. I found Fuller's Next Generation 6-12 cell mono hardware kit to be a savings over purchasing the items separately. Ray has even pre-soldered the prop shaft to the flex cable. He also includes a wedge rudder with water pickup. I have used it successfully however, Ray also offers a very nice blade rudder which I have found to be faster over the wedge rudder.

When drilling the transom for the shaft log I found Ray's example in the picture below to be very helpful. Be sure to drill the center of the 7/32 hole 1/4 inch up from the bottom of the keel. Carefully locate the strut bracket to the transom by assembling the strut into the bracket and align using Teflon tubing and prop shaft. Slide the bracket up strut to allow for plenty of height adjustment. Take your time with alignment. The four strut hole locations are very important and will ultimately determine how your boat can be tuned. I chose not to use the older style rudder bracket; instead I used the new "L" shaped bracket shown in the diagram below. The "L" bracket attaches to the strut with (3) bolts. The rudder placement is offset at the same inch and a half location. I mounted the rubber boot assembly between the two locations for the rudder push rod. See example below.

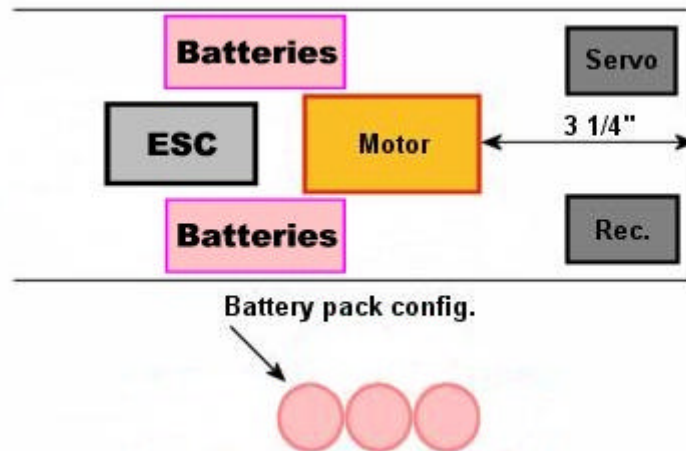
Hardware location for the El Lobo 2



I chose not to use trim tabs as shown here. After trying them I felt they were not needed in six cell stock class. The boat will easily balance out by using the saddle pack battery configuration. I have tried running all six cells in front of the motor but, it is too much weight forward resulting in keeping the nose too planted. Shifting the saddle packs fore and aft will allow you to fine tune your boat to various water conditions.

When mounting the turn fin as shown it is very responsive. I made my turn fin mounting bracket from aluminum angle. However you can also trim the right hand mounting flange from the bracket that comes with the turn fin and accomplish the same mounting location.

Interior Layout

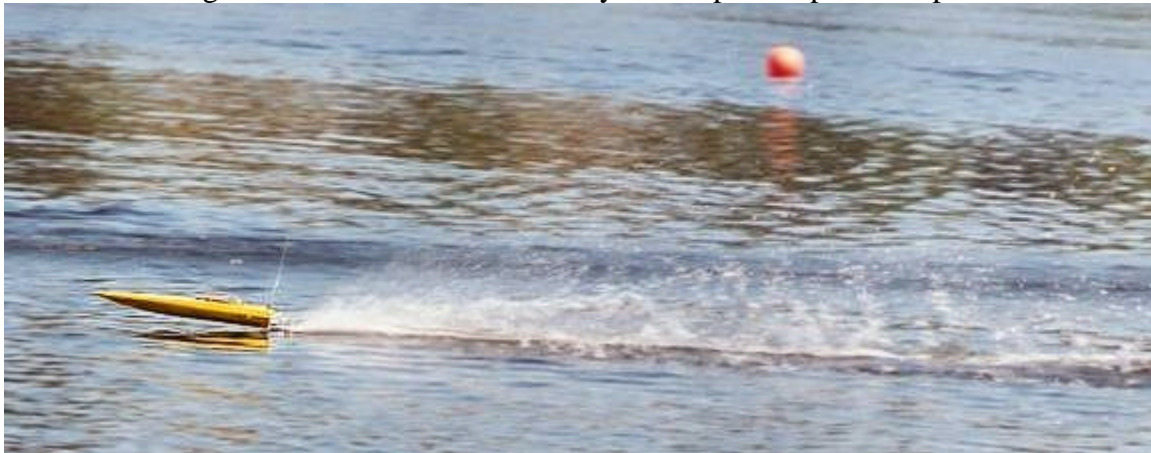


In the figure above you will notice I mounted the ESC just ahead of the motor with the saddle packs on each side. This will help to keep the wires as short as possible for maximum power transfer. I prefer using Deans connectors on the batteries and ESC and Peak/Orion universal bullet type connectors on the motor.

I chose to use the Penguin speed control w/BEC to save about 2 oz. of weight by not having to run a receiver battery pack. I had Andy make it with out the water cooling tubes to reduce even more weight. Using this configuration you can easily balance your boat to perform very well.

I would recommend using a good FM radio to minimize interference and provide good range. I am using a Hitec Lynx FM which has a very long antenna. It works very well on the water, in fact I can control my boat all the way across the lake, approximately a quarter mile away. The most common servo in our club for the rudder is the Hitec HS 225BB, however I switched to the lighter HS 81 to save even more weight.

In the photo below I just applied full throttle after coming around the exit buoy. With careful trimming a tuned stock motor can easily reach speeds up to 35 mph or more.





Ted Schultz "N1" Mono

The Bandit boats El Lobo II is an all fiberglass hull designed for either "N1" Mono six cell stock class, "N2" six cell modified class or 8 cell "O" Mono class racing. Please reference set-ups for "N2" and "O" classes. Some of the racers in our club run vacuum formed plastic hulls that are about half the weight of a fiberglass hull. After a year of competition I found the heavier fiberglass hull to be just as competitive and much more durable. With a little fine tuning and paying attention to weight, not too many coats of paint, and lighter components, I am just as fast if not faster.

The biggest problem I have experienced this past year has been keeping the boat from torque rolling or flipping end over end. Typically most stock motors lack performance, turning rpms in the range of 21,000 to 25,000 rpm. However, today's new generation motors like the Trinity Monster Stock will turn 34,000 rpm or more with a good set of silver brushes. When tuned with AT30 XHS-LD 20% silver brushes using purple and green overhead springs and after the brushes have fully seated, it is not uncommon to experience rpms up to 36,000 rpm.

With this kind of performance in "N1" Mono, prop selection and prop tuning becomes a critical factor. A good basic prop to start with is the plastic Octura Y534. After a lot of experimentation my favorite is a cut down Octura X435. I have been removing most of the nose area of the blade to reduce drag which allows the motor to reach maximum rpm. Other racers find that the Octura X632 work's best for them. Lowering the strut height is key to running the smaller diameter props like a X632.

The latest new generation 3300 batteries have a higher average voltage and lower internal resistance over the earlier batteries. Make sure your connectors are up to the task of transferring the energy. The Penguin speed control limits average amp draw to 60 amps with peaks of 120 amps. A well tuned stock motor and a freshly peaked 3300 battery pack you will need to ease on the throttle to avoid doing a torque roll. This happened to me too many times to count. It is allot more fun to complete a race than to receive a DNS or DNF.

I hope this helps.

If you have any questions send me an email at www.aggressiverctech.com

Aggressive Ted

