Some Gear Suggestions.....

That Said...
Motor.Specified as: Graupner S400.6V (GR#3321) $10
ESC.AeroMicro has a nice GWS GS400LI model available $23
This is a LiPo rated, 15/25Amp Braked version weighing 3/4 oz.
Be sure it is LiPo rated IE: low voltage cutoff, and has a dynamic brake to stop the prop in the glide. It should handle 15-20A continuously.
LiPo pack.Thunderpower 1320-2S 13C (17A continuous) $33
Connectors: Choose from several such as Deans 2 pin, JST, or 3.5 mm brass. I chose the later in the form of Eflite EC3 connectors - $3/pair of mating halves.
Wire, A good flexible 16 awg type should do for 12-15 A current draw.
Charger: I have a Trident multi chemistry unit sold by Great America. It was bit expensive but it does well. A simple and less expensive unit for LiPo cells only, might be any one of a number from www.Hobby-Lobby.com, or locally, Perry Lee at www.AeroMicro.com can probably steer you to a good one in the $30 to $50 range. Choose one that can provide at least 2.5 amps for future use though one limit charging Lipo.s to 1C (their rated capacity) or suffer the fear of flaming BLEVY for non-believers.
In the case of my TP 1320 mah pack, I.ll charge it at only 1.3 Amps for about an hour to full charge. You will eventually want 2 or 3 packs precharged overnight to fly the allotted contest flights. LiPos hold their charge much better than classic NiCads so this is not a problem.
Innaugral S400LMR event to be held

Let.s get to building up your first ever S400LMR model.
Pick an existing Cox 1/2A Texaco model that you have laying around, scrounge a few misc parts, and let it rip!

SAM International Speed 400 LMR Event Rules

1. Any approved SAM Old Timer gas model airplane. By rule, North American Old Timer designs are limited to December 31, 1942 and older (Section I, C). Other designs are limited to local SAM Chapter design date rules (Article XII, 2) but in no case later than December 31, 1950. Scaling is allowed but there is no minimum weight requirement. The model's name and design year should appear somewhere on the model.
2. Thrust will be provided by a non-folding, non- metal, propeller of any size driven directly by a Graupner Speed 400, 6 volt permanent magnet ferrite motor without ball bearings. After purchase timing adjustments are allowed.
3. The battery may be six NiCad cells, or six NiMh cells, or two LiIon or LiPoly cells of any capacity with producer's visibly
rated voltage not to exceed 7.4 volts.
4. The power to the motor must be radio controlled but may be on/off or ESC.
5. Flights may be hand launched with landing area determined by field rules.
6. The motor may be run only during the first 180 seconds of the flight; any running of the motor afterwards results in a zero score for that flight.
7. The model is the entry in the event. A model may be entered only once in this event but one contestant may enter up to five models of different designs without regard to the builder of the model rule.
8. At local contests where flyoffs are possible, a model's score is the sum of the best two of three 15 minute max flights. For postal contests, three models will constitute a team entry and all three 15 minute max flights are scored.

Why Another Electric Event?

Sam has enjoyed electric powered modeling events for many years and currently has four events: Electric LMR, Electric Texaco, Spirit of SAM and Electric Wakefield. Why do we need a SAM Internattional Speed 400 LMR event?

One Word: FUN!

The SAM Europe community started an event it called “1/2A Texaco Electric” which employed the same general size Old Timer models as the Cox Engine 1/2A Texaco but used an un-geared 6 Volt Speed 400 Electric motor with plain bearings.(no ball bearings) The battery packs were to be 7.2 volts and they ingeniously allowed all battery chemistries by saying that Li-ion or Li-poly cells were limited to two cells totaling 7.4 Volts. There is no limit on the cell capacities because the engine run time and the type of motor sets the basic power package at a level field for all.

Think of it, a “under-$10” motor that is manufactured by Mabuchi in lots that are measured in hundreds of millions that provides a reliable, stable level of thrust and generates sufficient height to be competitive in the run time allotted. It’s a formula for an easy-to-fly event that the modeler can participate in with a low investment in time and money and build replicas of models from the past that might not be competitive in other sizes in other events, while having a ball flying what is essentially a “Park Flyer” electric model. While the Cox Motor event has specialized in 288-square inch models, as the optimum size for ½-A Texaco, Slightly larger 300 to 320 Square inch renditions *might* prove more beneficial for this new event, or not. The SAM community will make that determination as it always does, via trial and error. When you compare this event to the Cox 1/2-A Texaco event, who wouldn’t welcome a motor that always starts when the throttle is advanced as opposed to the frustrating fussing that Cox .049s requires? Or, Some may simply build another (electric) fuselage for their existing Cox Event model and have two events for one set of wings and empennage.

Here is Roselle’s Dallaire 300 in2 S400 entry. Plane was originally built by Dave Lewis as a Cox 1/2A Tex model.

Airframe:no powertrain/radio 7.00oz
S400 with heatsink mount 3.25
R/C 1.50
GWS ESC GS400LI 0.75
TP 1320 LiPo 2s 2.00
TARGET weight TOTAL 14.5 oz
This would be a 7 oz W.L. Dallaire. Hmmm!
Calculated 3 minute climb at 8 oz/fts is 1100 feet.
A 15 minute MAX flight will require an average sink rate of
less then 75 fpm. Thus a smaller model should do better if it can be kept in sight!
PS . Those calc.s suggested a 6-4 prop as optimum
by Steve Roselle, SAM 21.