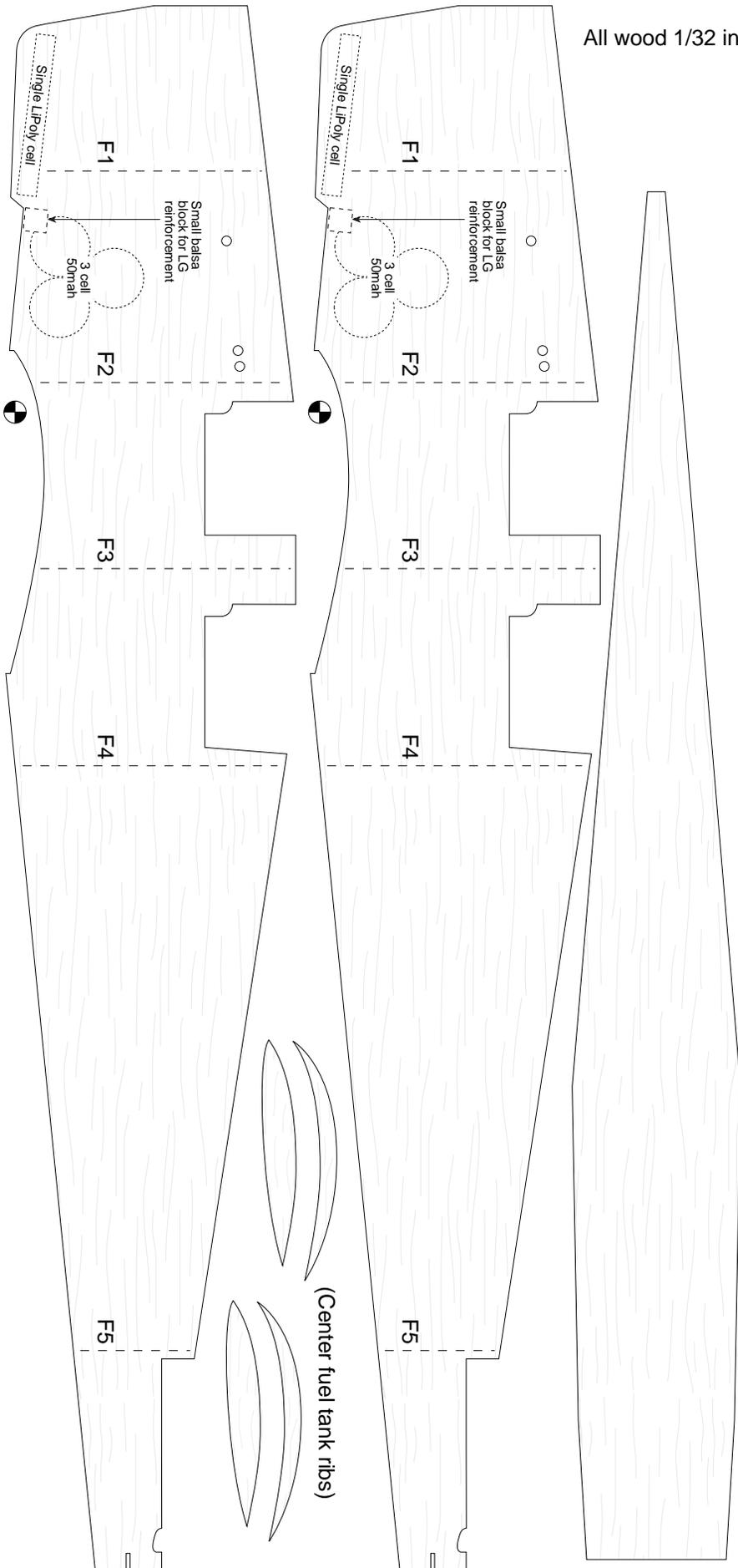
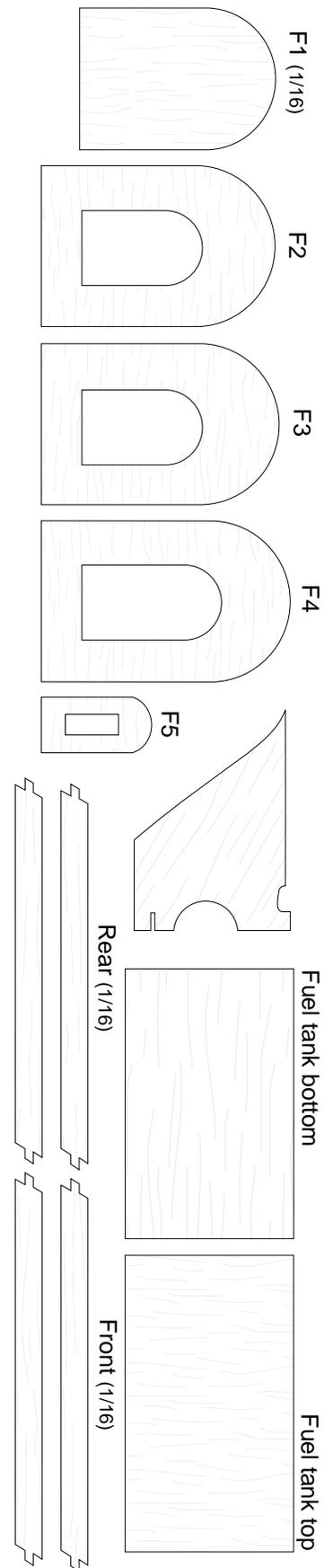


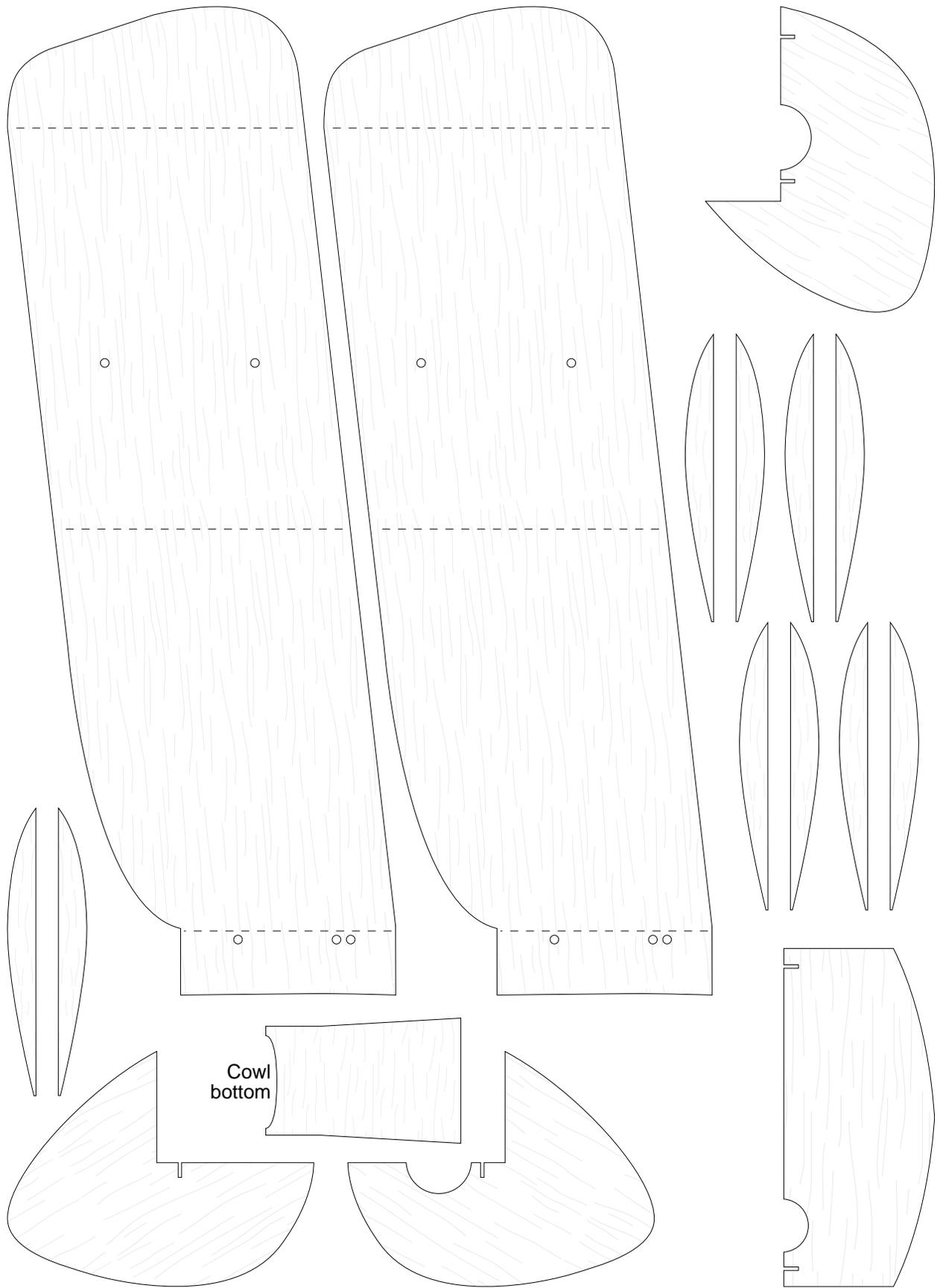
MicroMoth

Tiger Moth for the RFFS-100 by Chris O'Riley

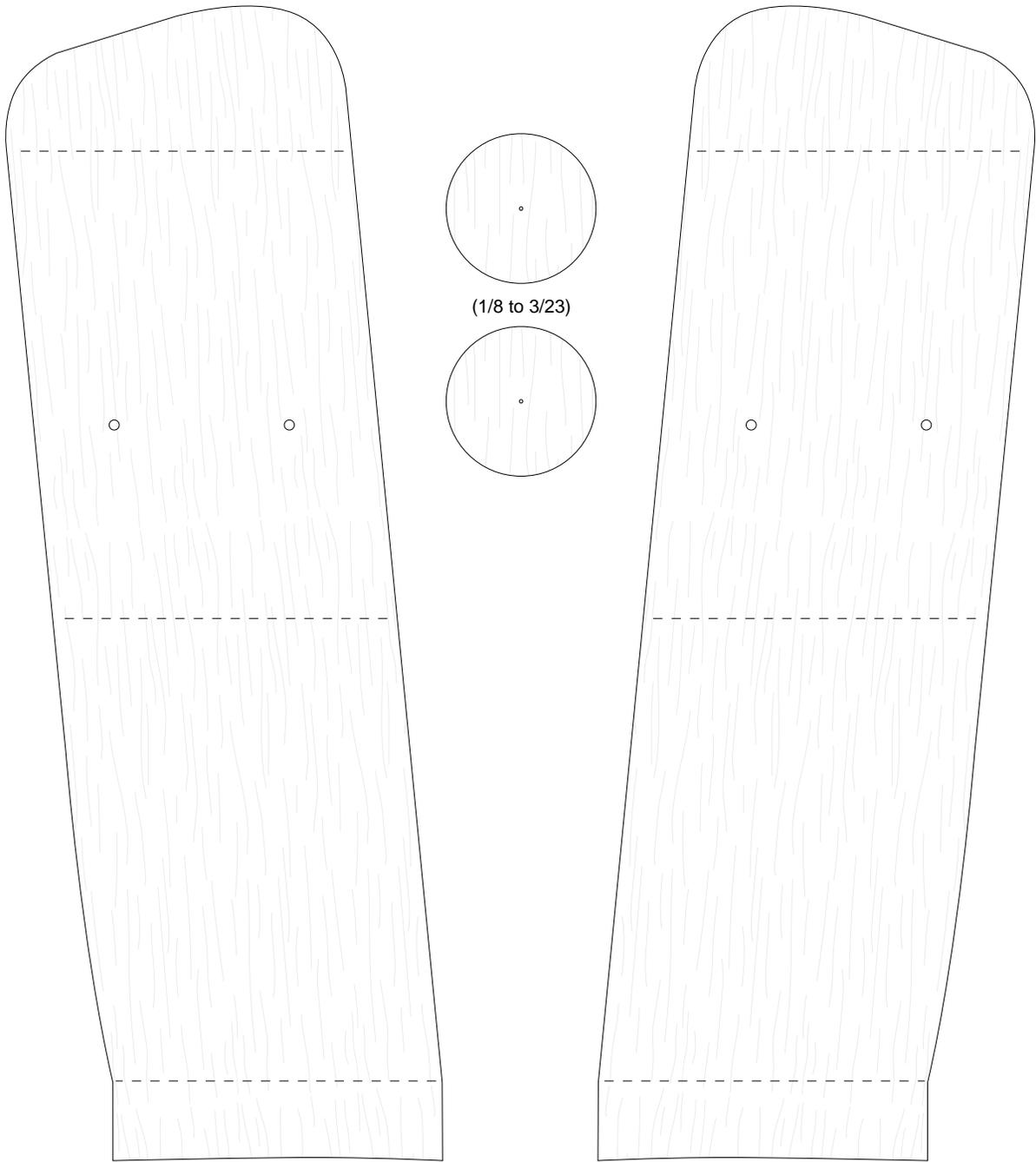


All wood 1/32 inch sheet unless otherwise stated.

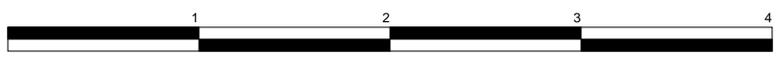
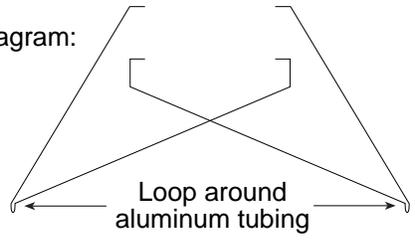




Cowl
bottom



Landing gear diagram:

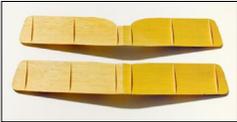


Construction notes:

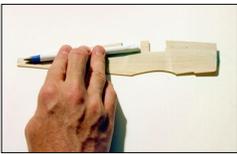


Use the lightest, thinnest 1/32 balsa for all wood except where indicated on the plans.

If you'll be painting the plane, the best time is before assembly. This can be done with markers, paints (I choose watercolors) or colored tissue paper.



The wings go together quickly. Although not shown in the picture, apply the bottom sheet to the center fuel tank in the upper wing at this time. The wings should have 1/2 inch of dihedral.



bend the wood and

To build the fuselage, start by rolling the halves on a hard surface with a pen along the lines it will need to bend. These include horizontally along the rear turtle deck and front cowl, and vertically behind and in front of the two cockpits. This helps prevent the possibility of splitting.



Starting from the rear, run a very thin bead of CA along the top of one fuselage half and press the two together. Doing this over a piece of wax paper prevents it from sticking to the surface.



Proceed in the same manner for the rest of the fuselage. Be sure to give each section ample time to dry to prevent it from splitting apart when gluing the next section.



Starting with F2 and proceeding to F5, position each rib in the fuselage and hold it in place by gently squeezing the fuselage halves together around it. There's no need to glue the entire edge of each rib, a few "spot welds" of CA will do just fine and save some weight. Glue F1 last, and angle it to provide 2 degrees of right and down thrust. Removing the motor from a KP00 will allow the gearbox to sit flat against the rib while you position it, and a pair of tweezers aids in tweaking the alignment before gluing.

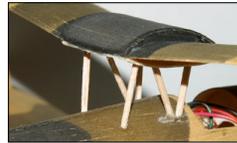


Once the ribs are in place, glue in the bottom wing and add the bottom sheet. You'll have to shave a small amount of wood from the center rear of the wing to allow the sheet to sit flat.

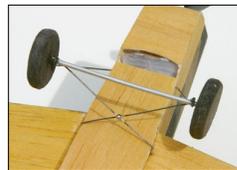
Mount the motor, passing the wires up into the cockpit and add the sheeting on the bottom of the cowl



Join the elevator halves together with a 1/16 stick and attach the rudder and elevator to the tail surfaces with thin slivers of rubber band. Attach the actuator coils (I use rubber cement which is both strong and allows easy removal should it be necessary) and pass the wires through the small opening just behind rib F5. You may need to drill a small hole in the top of F5 to allow this.



Attach the top wing by first gluing the interplane struts. Drill the holes through the bottom sheet of the fuel tank, and then pass through 1/16 sticks (sanded round) for the cabane struts. Once the struts are glued into the fuselage and wing, trim them off at the top and add the top sheet to the fuel tank.



Form the landing gear from very thin music wire and a small diameter aluminum tube. As seen in the diagram and picture, the wire exits the fuselage where the reinforcement blocks are located, loops around the axle, and then passes to the opposite side and back into the fuselage beneath the wing. Wrap the overlap in the rear a few times with a single strand from some copper wire and tin it with some solder. This makes a surprisingly strong landing gear.



If you'll be using a single LiPoly cell, place the RFFS-100 in the front cockpit. The battery will slip in from the front of the cowl, beneath the motor. You may have to gently squeeze the cell to fold the edges of the packaging up against the actual cell. Depending on if or how you painted the plane, a small amount of weight may need to be added to the nose. I needed to add 2 pennies beneath the battery to get the plane to balance where indicated on the plan. If your plane is colored with markers or unfinished, that might not be necessary.

If you'll be using a 3 cell 50mah pack, place the receiver in the rear cockpit and carefully enlarge the hole in rib F2 to allow the pack to slip through and sit in between ribs F1 and F2. A cotton ball or two placed in before and after the battery will prevent it from moving around and aid in holding it in positioning. In either case, there's no need to mount the receiver as the motor, actuator and battery wires will be more than adequate to hold it in place.



At this point, your MicroMoth should be complete.