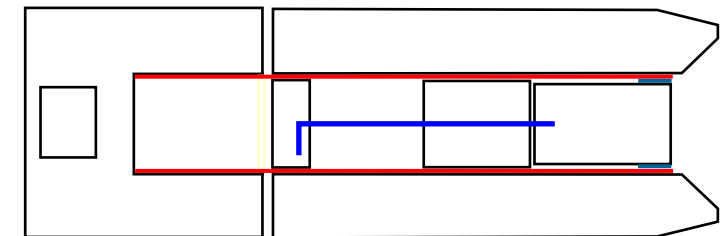
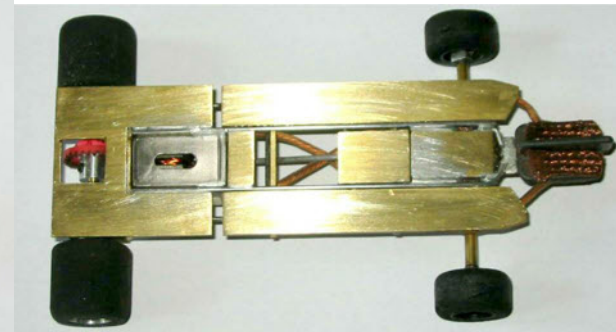
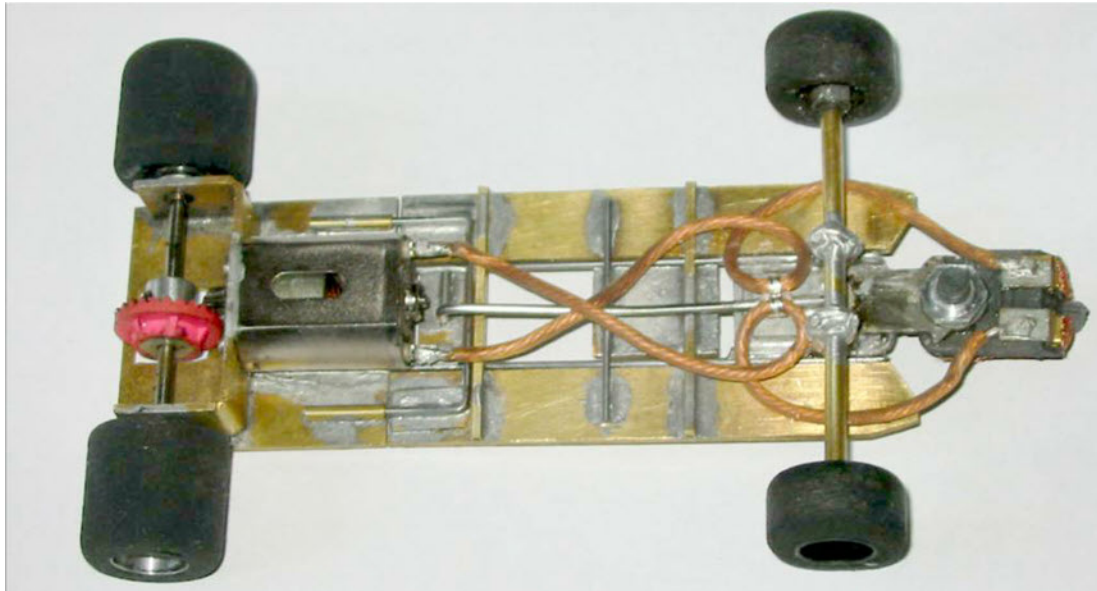




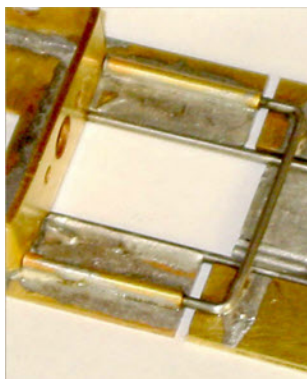
AB Slotsport

AB 2012 Retro Formula One Kit



— Optional 16G stiffener bar

The AB 2012 Retro F1 kit may be built in a number of configurations depending on your track. It is primarily designed as a simple 2 rail chassis using either 0.062" or 0.055" rails. The kit comprises of an "easy bend" rear axle/motor bracket, a rear base plate, 2 x pan sections, a guide plate

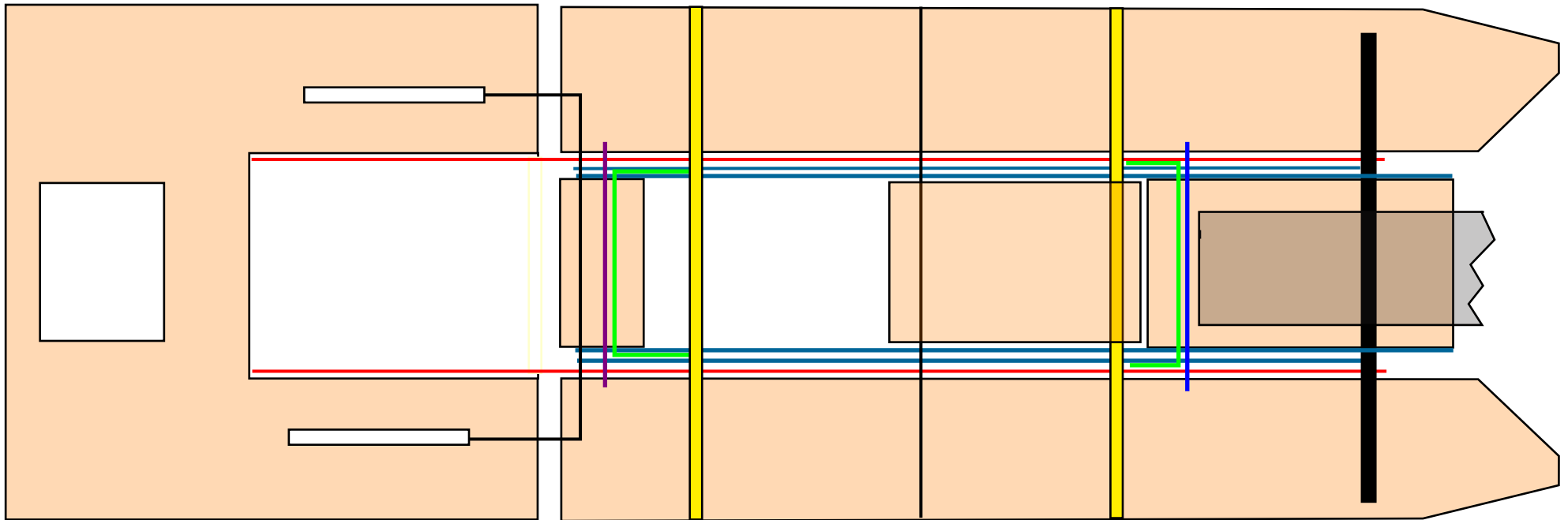


Bend the rear bracket, bending across the "cut outs" on the bracket. Locate this in the rear base plate and solder solid. Use either 0.062" or 0.078" wire for the main rails. The main rails should be bent up at the front to support the front of the front axle tube. Bend a couple of right angle pieces of wire to support the rear of the front axle tube and solder these to the front of the guide baseplate and rails. Solder Spring steel guide plate onto the guide baseplate. To locate the rear of the pans use 1/16 ID brass tube soldered to the rear plate as shown and a "U" piece of 0.047" wire soldered to the pans. This will give the pans a little "lift" and allow forward/rearward motion.

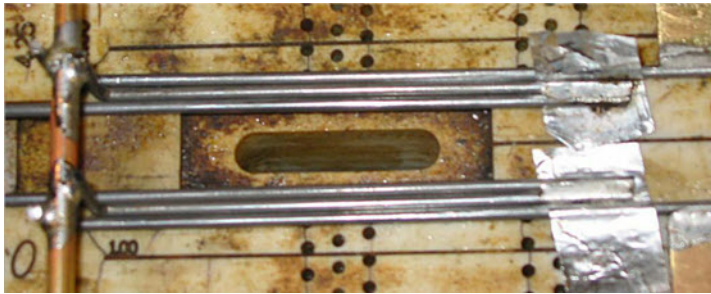
Solder the small plate which locates in front of the motor to the main rails. If you wish to further stiffen the chassis you can solder the front of the motor to this and also fit the "optional" 16G stiffener bar between the the small plate and the guide plate. Solder Full width brass pin tubes across the pans to tie the pans together. The moving centre plate is soldered to the front pin tube and provides a "stop" for front pan movement, when it contacts the guide baseplate. Solder a 16G wire across the rear of the guide baseplate, overlapping the pans by approx 1/8" to provide the front pan upstop. These locations can be clearly seen on the following page where we illustrate how to make a Z rail version of this chassis.

It is also possible to build this chassis as a “Z” rail chassis. This means using 3 rails per side connected in a certain way. This method can tend to make a more “forgiving” handling chassis depending on you driving style. It will be necessary to adjust the width of the centre plates to accommodate the additional rails. The following shows a basic diagram and photos and hints to get this right.

THIS LAYOUT DEPENDS ON USING 0.062 RAILS AS MUCH OF THE STRESS WILL END UP ON THE OUTER RAILS.
 THE IDEA IS TO INCORPORATE A Z RAIL BUT ALSO USE IT TO “SPRING THE FRONT AXLE” (WITHIN THE LIMITS OF THE STOPS).
 The z rails essentially help isolate the front from the back of the chassis.

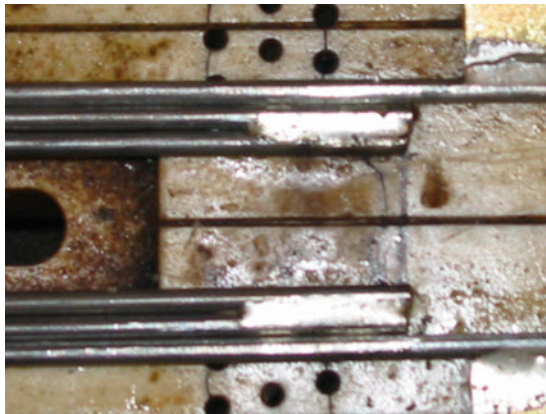


- Z RAILS - OUTSIDE RAIL SOLDERS TO MOTOR BOX AND FRONT AXLE TUBE, CENTRE RAIL SOLDERS TO REAR OF OUTER RAIL AND FRONT AXLE. INNER RAIL SOLDERS TO PLATE IN FRONT OF MOTOR AND FRONT PLATE (UNDER GUIDE PLATE). So essentially the front axle “floats” on the outer two rails.
- Z RAIL U BRACES / RAIL DOWN-STOPS - REAR SOLDERS TO THE PLATE IN FRONT OF MOTOR, AND SOLDERS ACROSS THE 2 PAIRS OF INNER RAILS. FRONT SOLDERS ACROSS THE TWO OUTER RAILS AND FLOATS OVER THE FRONT BRASS PLATE
- FRONT UPSTOP SOLDERS TO THE FRONT BRASS PLATE (PREVENTING THE OUTER RAILS / FRONT AXLE FROM LIFTING)
- REAR STABILISER BAR - SOLDERS ACROSS THE BRAS PLATE IN FRONT OF THE MOTOR AND FLOATS OVER OUTER RAILS, PREVENTING THE PLATE IN FRONT OF THE MOTOR AND THE REAR OF THE TWO CENTRE RAIL SETS FROM DIPPING



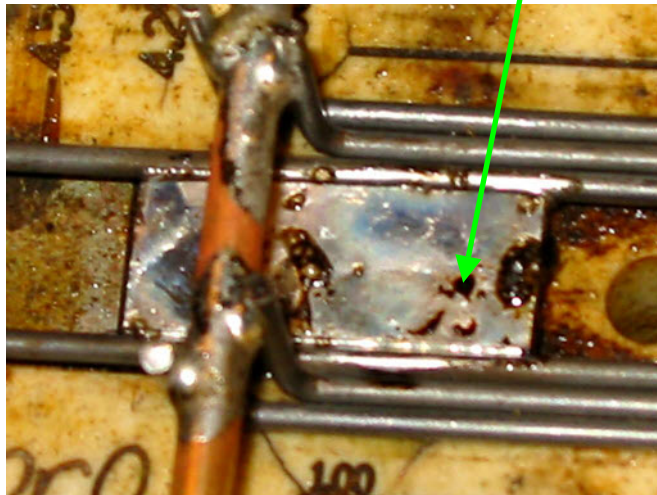
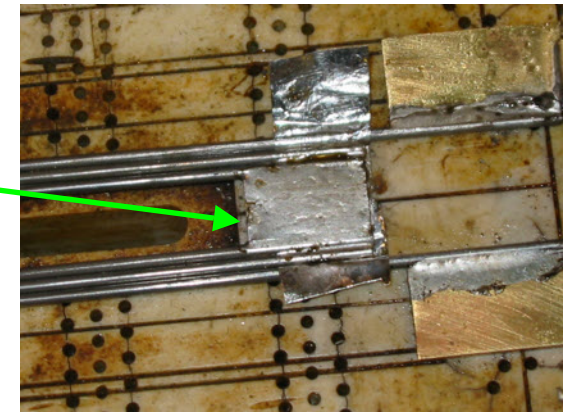
Start by bending the rear bracket and soldering to the rear baseplate. All 3 main rails should be 0.062" diameter.

Set up the wheelbase on a jig (between 4 & 4/14") and solder the outer rails, joining the rear baseplate to the front of the front axle. The centre rail solders to the back of the front axle tube and finishes just in front of the motor. The 3rd, inner rail solders to the rear end of the middle rail and forward, to the edge of the guide baseplate (the baseplate will have to be modified in width to accommodate the rails). When soldering the rear of the centre rail and the rear of the inner rail together it is an idea to "isolate" the outer rail with a small piece of aluminium foil to prevent you soldering to the outer rail. See photos

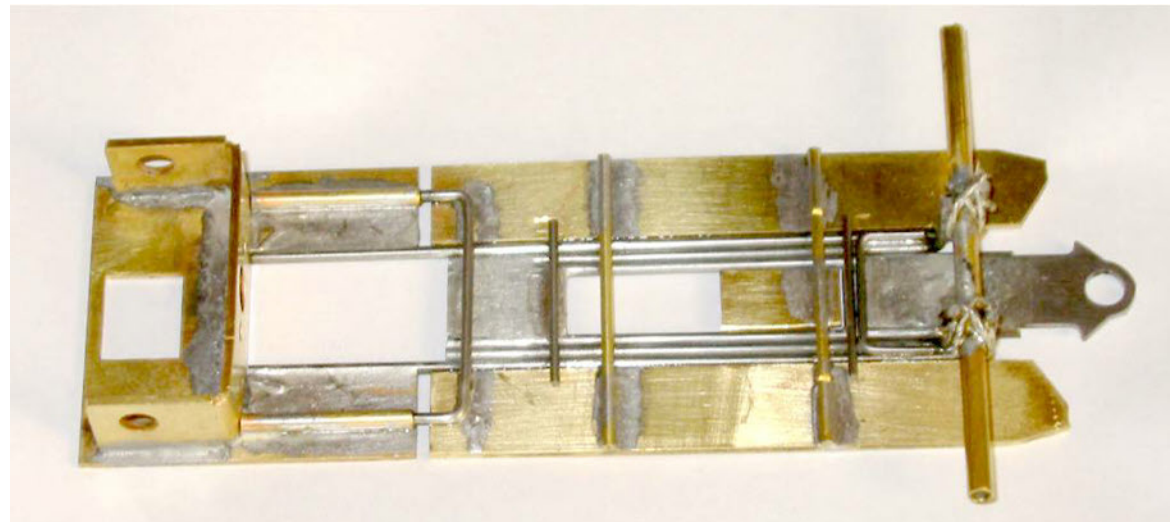


Narrow the width of the small plate which sits in front of the motor and solder to the inner rails. (Ensure that the motor clears this when fitted).

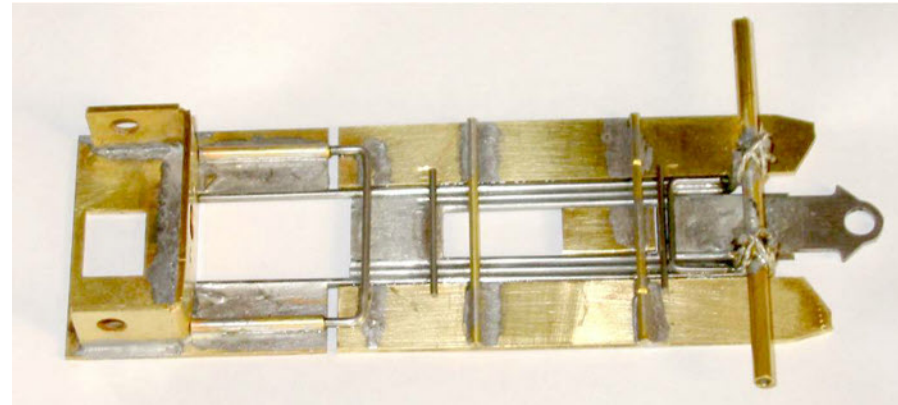
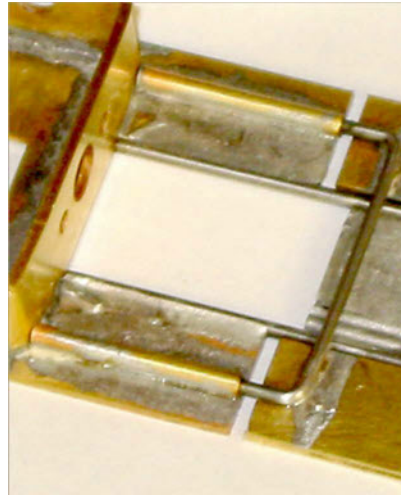
Now modify the width of the guide plate baseplate and solder in place. When finished and the steel guideplate is soldered on the baseplate, the distance between the guide pivot on the guide plate and the centreline of the front axle should be approx 3/4"). Trim excess wire from the front of the guide baseplate and solder on the steel guide plate.



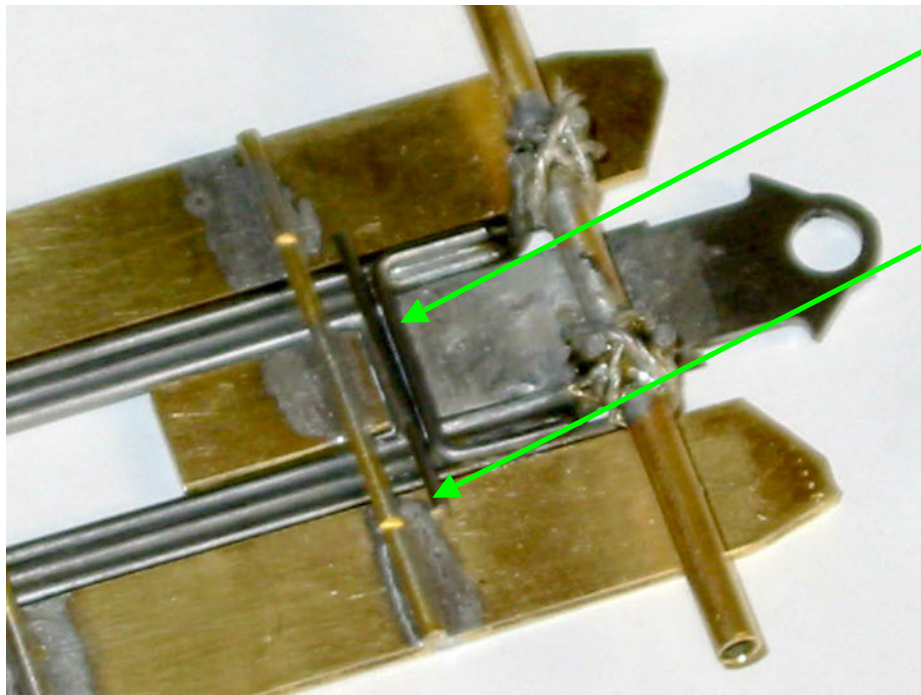
You should also "wire" the front axle tube to the piano wire axle supports, solder in place and then trim.



After cleaning the centre section it is time to mount the pans. The rear of the pans mount by bending a "U" of 0.047" wire. This is soldered to the rear of the pans as shown and the ends rest in 0.062" ID brass tubes, this allows the pans to move forward and back and also allows a little "lift" in the rear of the pans. The wire only needs to project into the tubes by approx 3/8" max.

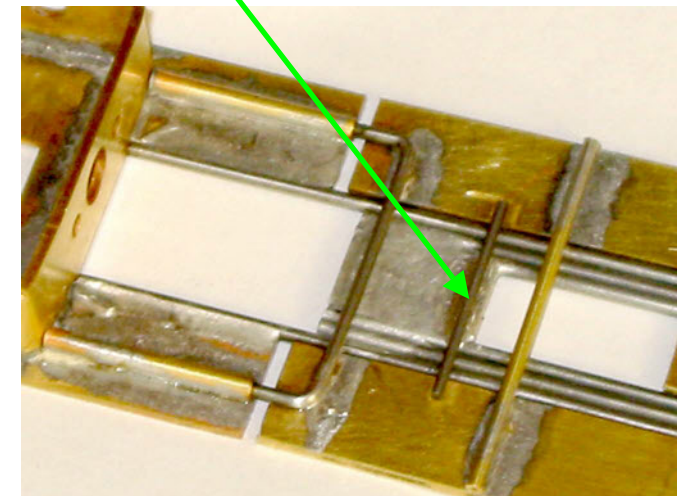


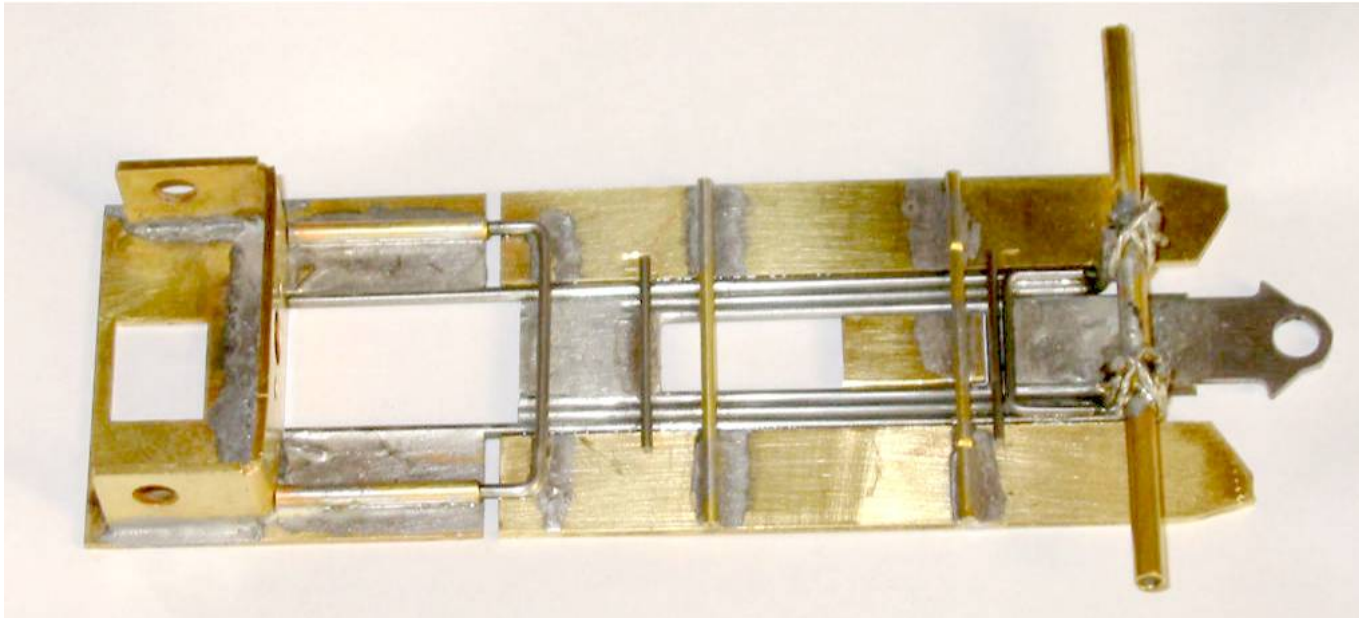
You will see from the above photo that the Pin Tubes solder to both pans and lock the pans together. The "moving brass "infill" towards the front is soldered to the bottom of the front pin tube. This limits the forward movement of the pans as it contacts to the back of the Guide baseplate.



A "u" section of wire soldered to the outer and second rail (not the inner rail!) controls the lift of the guide plate. The straight wire soldered to the guide baseplate (behind the steel guide plate), overlaps the rails and the inner edge of the pans by approx 1/8" and acts as the front pan upstop. The outer edges can be "skimmed" to adjust upward movement of the pans.

This wire (soldered to the brass plate and overlapping the pans) prevents the rear end of the Z rails dipping below the chassis





Then just fit rear bearing, axle and gear, motor and pinion etc, trim the front axle tube, fit front axle, front wheels and guide & GO RACE!

