Next step in my build was to complete the roll cage. All this requires is another hoop bent from 3/4 inch conduit to the same approximate radius as the first one. I trimmed and fit this one so it attaches to the top frame rail about half way between the main hoop and the rear of the frame. I also bent the little hoop for the headrest from 1/2 inch conduit and attached it to the upper rear crossmember. At the top, the roll cage hoops are about 4 inches apart and tied together with another piece of 3/4 conduit.



Attached Images

The following pictures contain a wealth of information, but I must apologize for them. I went to school on that particular day without my camera. When it came time to work on the car, I couldn't very well tell the kids "We can't do any work today because I don't have my camera". So, we proceeded with the day's activities and I had to take these pics the next day...

What we're seeing in the first pic is the frame with the top & bottom center crossmembers and the vertical uprights in place. All those are in the vicinity of where the front axle will go. Notice that the top piece is arched slightly. This helps to hold the shape of the body later and will become the support for the steering shaft. Also visible are the diagonal aluminum side supports. In my previous car I made these from more conduit, but since they are always in tension, I have used aluminum this time. The 1/16 X 1 aluminum flat stock weighs about 1/3 of an equal length piece of 1/2" conduit.

The second pic shows the seat-back supports and the temporary seat back made from 3/16'' Luan plywood.



Attached Images

In order to put those aluminum supports in place I had to have something to attach them to. I got some #10 fender washers at the local hardware store and welded them in diagonally opposing corners. The rear ones are placed at the base of the roll cage hoop where it attaches to the lower frame tube (1st pic); the forward ones are at the junction of the forward vertical member and the upper frame tube (2nd pic). Aside from providing an attachment point for the aluminum strips, the washers also form gusstes in those corners.

To install the aluminum and get it tight, I needed to pre-stress the frame. To accomplish that, I placed a 3/16" thick strip of wood under the frame at the bottom seat crossmember (visible in the first and 3rd pic) and then clamped the frame down to the table on both ends. Next, I cut and drilled the aluminum to fit, riveted it in place with large-head 3/16" rivets. When I released the clamps, the frame sprung back to its original shape and pulled the aluminum tight.

Attached Images



