



Figure 8.9. The JNTS car body. See also Photo A1.P4 in Appendix 1.

Figure 8.9 shows detail of the JNTS car body. The wood part of the body is 1/4" thick and is cut out as shown to reduce the weight of the front part of the body. Axle and set screw holes for the front wheels are the same as for previously discussed designs. A 0.050" deep notch should be cut in the rear of the wood body part in order for the rear assembly attachment strip to fit flush with the body underside. The rear assembly is attached using an epoxy resin that is applied in the notch and allowed to exude through the holes in the attachment strip. The epoxy should also be applied between the butt ends of the two body pieces so that all cracks are filled.

Contact or self-adhesive paper makes an ideal lightweight cover for the body cutout and may be applied as soon as the epoxy has been sanded smooth and the body spray painted. The paper is available in a wide variety of patterns and colors. Other covers may be applied easily by using narrow

strips of double stick Scotch® tape. If one has a color printer available, designs may be printed on transparency paper which is then cut to fit the body shape. Table 8.7 shows the specifications for the JNTS body. Note that the height and the projected area are only approximately 40% of earlier designs. Also the CM has been moved 0.46" more toward the rear compared to the JNRG body. This puts the CM only approximately 1/2" in front of the rear axles and results in a weight on the front wheels of only 12 g.

Table 8.7 The JNTS car body specifications.

Length	7.00 in	17.78 cm
Width	1.86 in	4.72 cm
Max. Height	0.268 in	0.681 cm
CM from body center	2.37 in	6.02 cm
Projected Area, $A_B$	0.500 in <sup>2</sup>	3.23 cm <sup>2</sup>
Surface Area, $A_S$	30.62 in <sup>2</sup>	197.54cm <sup>2</sup>
$A_S/A_B$ Ratio	61.2	61.2