

Electric Car Material Selection - Safety Considerations

Materials	Safety Concerns	Why Use It?	Precautions / Actions
$\frac{1}{4}$ " hardboard Platform	Can create dust irritation if sanded excessively Comes in 4x8 sheets have two students move the sheets Store vertically in a rack	Light weight No grain issues Smooth This thickness cuts well on scroll saw and bandsaw Inexpensive	Wear dust mask Layout and cut accurately to eliminate need for sanding Use dust collection
$\frac{3}{4}$ " S4S pine Axle holders Body plug Wheels	Can create dust irritation if sanded excessively Jointing and planing operations Using wheels cutter on the drill press	As softwood easy to layout and cut Shapes well with portable sanders Inexpensive	As above Order planed material Layout for optimum material usage
$\frac{1}{4}$ " threaded rod $\frac{1}{8}$ " welding rod Axles	Sharp metal edges from cutting to length	Inexpensive Threaded rod easier to attach wheels	File edges to remove burrs Thread nuts onto rod before cutting to length
2mm plastic sheets Body shell	Proper ventilation for vacuum former Sheet is hot after it comes out of the former	Forms well to almost all contours of a form	Use a mould release agent - silicone spray will do Keep a 3 degree angle on the sides of the form for easier release of the body shell
Circuit board	None for material itself	Proper for application	When dipping in solution use gloves and wear safety glasses When cleaning use gloves and wear eye protection