

GUIDE TO CHOOSING MATERIAL

POSITIVE	NEGATIVE
PLYWOOD	
<ul style="list-style-type: none"> • Readily available • Inexpensive • Strong and rigid • Can be cut and drilled • Is a natural insulator • Can be painted 	<ul style="list-style-type: none"> • High friction will affect moving parts • When painted pre-drilled holes will become clogged • It won't bend
ACRYLIC	
<ul style="list-style-type: none"> • Available in a range of colours • Relatively easy to cut • Drilled holes are clean and clear • Good finish is easy to achieve • Can be heated and bent to shape • Is an insulator • Smooth surface provides low friction 	<ul style="list-style-type: none"> • Brittle - Care must be taken when drilling and cutting. When drilling holes larger than 3mm, you must use a drill modified to cut acrylic. • Glues can be a safety concern due to fumes • Superglue can make the surface frosty. • Hot glue does not adhere well. Glued parts will eventually fall off.
PVC	
<ul style="list-style-type: none"> • Easy to work – cut and drill holes • Minimum risk of cracking when using self-tapper screws • PVC glue is readily available • Can be heated and bent • A good finish can be achieved • Is an insulator 	<ul style="list-style-type: none"> • Only available in a limited color range (white, grey and clear) • Heavier than acrylic
ALUMINIUM	
<ul style="list-style-type: none"> • Can be cut, drilled, punched and bent easily with basic equipment e.g. tin snips, guillotine • Will accept self-tapper screw • Light weight and relatively rigid 	<ul style="list-style-type: none"> • Is a conductor so care must be taken to isolate PCBs to prevent shorting out
STEEL	
<ul style="list-style-type: none"> • Similar to aluminium except stronger • Available in range of thicknesses 	<ul style="list-style-type: none"> • Heavier than aluminium • Requires painting to prevent rust
BALSA	
<ul style="list-style-type: none"> • Lightweight • Easy to cut, shape and glue 	<ul style="list-style-type: none"> • Easily broken, soft • Comparitavely expensive • Care required when using screws to avoid overtightening and stripping the hole out. • Absorbent • Limited to smaller projects due to narrow material width • Doesn't work with Superglue