

# THE SPECIFICATION

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On behalf of The World Association of Technology Teachers

## W.A.T.T.



World Association of Technology Teachers

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## MY SPECIFICATION

My Product Specification is written below. It is a check list that will help me develop my product. It has been checked and agreed with my client / customer

**MY SIGNATURE:** \_\_\_\_\_

**CLIENT SIGNATURE:** \_\_\_\_\_

TARGET MARKET: \_\_\_\_\_

FUNCTIONS: \_\_\_\_\_

MATERIALS: \_\_\_\_\_

ERGONOMICS / OVERALL SIZES: \_\_\_\_\_

MANUFACTURING PROCESSES AND QUANTITY: \_\_\_\_\_

EQUIPMENT / TOOLS - REQUIREMENTS: \_\_\_\_\_

MAINTENANCE REQUIREMENTS: \_\_\_\_\_

PRODUCT LIFE SPAN AND LIFE CYCLE: \_\_\_\_\_

AESTHETIC APPEARANCE (SHAPE, COLOUR, TEXTURE: \_\_\_\_\_

QUALITY ASSURANCE: \_\_\_\_\_

QUALITY CONTROL: \_\_\_\_\_

COST: \_\_\_\_\_

TIME SCALE AND PLANNING: \_\_\_\_\_

HEALTH AND SAFETY: \_\_\_\_\_

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**MY SIGNATURE:** \_\_\_\_\_

**CLIENT SIGNATURE:** \_\_\_\_\_

**TARGET MARKET:** The target market will be the customers of my client's furniture company. The customers are mainly home/flat owners.

**FUNCTIONS:** The chair will be simple, effective and modern looking. It will create a sense of rest and comfort which will enable the user to relax. The chair will be supplied as a flat pack, for ease of distribution and to reduce transport/distribution costs. It will be an interesting piece of furniture.

**MATERIALS:** The 'rocker rails' will be manufactured from Aeroply which can be formed easily into a variety of shapes. The rest of the chair will be manufactured from beech, which can be machined effectively. Also, beech is quite easy to cut and shape by hand. It is an attractive natural wood.

**ERGONOMICS / OVERALL SIZES:** I will use measurements derived from my ergonomics research. The chair will be comfortable to use as it will be designed to support the lower back. The overall sizes will be approximately Height 750mm, Width 550mm, depth 650mm.

**MANUFACTURING PROCESSES AND QUANTITY:** The chair will be manufactured as a prototype. This means it will be manufactured largely by hand. Manufacturing processes including using CAD/CAM will be applied to engravings/carvings to the back. A former will be developed to aid the manufacture of the rockers.

**EQUIPMENT / TOOLS - REQUIREMENTS:** Hand tools - firmer chisels, mallet, hand files, hand drill, woodworkers try square and marking knife. Machines - drilling machine, fretsaw, CNC router, sanding disc, hand power sander.

**MAINTENANCE REQUIREMENTS:** The chair will need regular polishing to protect the varnished finish. Occasionally, the chair will need a safety check to ensure that the joints are not damaged and that the rockers move smoothly, allowing the chair to rock forwards and backwards with ease.

**PRODUCT LIFE SPAN AND LIFE CYCLE:** The chair will be designed to last a life time and with proper care, longer still. When the chair eventually reaches the end of its useful life, it will be possible to reuse or recycle the wood. Quality natural wood is to be used with this purpose in mind. All other components will be manufactured from quality materials or recycled/reclaimed materials.

**AESTHETIC APPEARANCE (SHAPE, COLOUR, TEXTURE):** The chair will be designed with aesthetics in mind. The shapes will flow, following smooth lines and curves. Natural beech will be used as it has a light brown colour and will fit in with the modern surroundings found in the home of my client. Natural wood is to be used as this will be a quality one off piece of commissioned furniture.

**QUALITY ASSURANCE:** Quality assurance will be carried out to ensure that all the systems and procedures are in place to ensure that a quality piece of furniture is manufactured. The client will be constantly updated and consulted on all aspects of design and manufacture.

**QUALITY CONTROL:** The chair will be checked for quality and imperfections/damage at every stage of manufacture. Corrections/repairs will be made so that the chair is manufactured to the highest possible quality. A final quality check will take place before the chair is given to my client.

**COST:** The chair will be manufactured for a total of £120. This price includes materials only and does not include labour costs, tools and equipment requirements. These are currently available in school.

**TIME SCALE AND PLANNING:** The chair will not exceed 45 hours to design and manufacture. I estimate that approximately half the time will be spent on design work and half on manufacturing, which will include model making.

**HEALTH AND SAFETY:** Health and Safety regulations will be adhered to during the manufacturing process. When designing, the chair will be rigorously tested for stability and strength. Every effort will be made to ensure that the client or his customers cannot be harmed when using the chair.