

RHS wind chime project

Year 9



Sharing the best in Gardening

Design Brief

1 – Physical requirements =
Can the product survive in the environment with the daily wear and tear.

2 – Aesthetics = *How does the client want the product to look?*

3 – Size = *what are the overall measurements of the product and does it match the clients demands*

4 – Function = *What does the product need to be able to do?*

5 – Performance requirements = *can the product repeatedly perform the same function without breaking*

Materials used



Acrylic plastic sheets – To be designed on CAD and produced through the laser cutter

Aluminum pipes – To be measured and cut using hand tools



Wooden pipes – Measured and cut using scroll saw.

Material properties

Strength

Strength is the ability to withstand forces without breaking

Hardness

The ability to withstand scratching, rubbing or denting

Plasticity

Its ability to change shape permanently and remain ductile

Brittleness

This is how much a material can withstand stretch without breaking

Toughness

A materials ability to absorb impacts without breaking or snapping

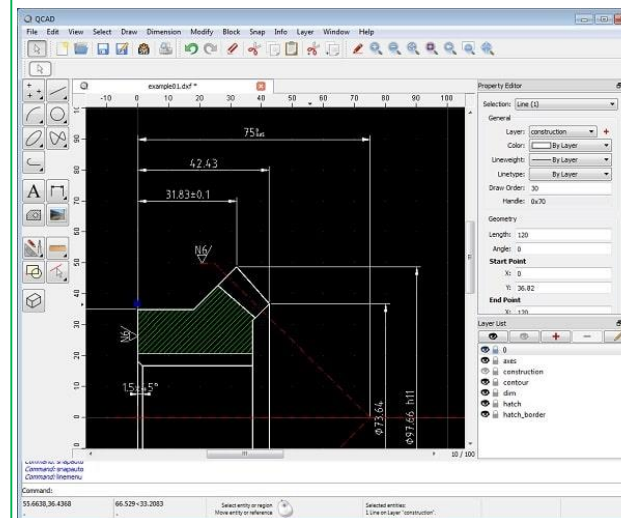
Durability

The materials ability to repeatedly withstand usage and corrosion

Scaled drawings on 2d design

Scaled drawing:

This is used to show the true size of a product. The drawing can either be to scale, scaled down or scaled up. The scaled drawing also allows the laser cutter to understand the commands for cutting the materials used



Select

Radius

Shape

Text

Transform

Line

Arc

Path

Dimension lines

3D effects