

## **USB powered Desk Lamp**

### ***Brief:***

**Your brief is to design and manufacture a pre-production prototype for a USB port-powered desk lamp.**

Your desk lamp final submission must

- Be made to the highest standard of manufacturing quality and finish
- Be mainly made from metal
- Use the lighting PCB that is provided for you.
- Contain elements of turning, milling, drilling, screwing and knurling.
- Be accompanied by an A4 Learning-Log containing the following:
  - your initial hand drawn, annotated, design concept sketch
  - a 3D CAD-drawn image of the final design
  - an engineering drawing that has been developed from your CAD drawing
  - a manufacturing diary telling the story of your design development

### ***Things to consider:***

**The absolute key consideration with this project is achieving a quality, engineered, outcome.**

Consider carefully:

- The quality of both design and manufacture.
- That your desk light is small enough for you to pay attention to fine detail and you are able to re-work any errors.
- That you are able to plan and manage your time effectively.
- The form – that this outcome is a prototype and that your finalised design could go into mass production.
- That the finished prototype is fabricated and that there is no welding involved in the assembly process.
- Your A4 Learning-Log should 'tell the story' and not be an album of 'neat nonsense'.
- The assessment criteria/mark scheme – this should guide you in recognising how to make the most of your efforts and help you to gain maximum marks.