Year 10 Engineering

Tuesday 7th July at 11.15am

Log on to the zoom lesson using the following link:

Engineering Design	7/7/20 11.15am	Meeting ID: 858 1229 9060 Password: 6zV40v	• *Pen* • *Pencil* • *Ruler* • *Lined paper* • Plain paper

- You need to have 3 completed design ideas for your lift buttons from last weeks sessions. They should be shaded but do not need to be annotated yet.
- If you missed these sessions you can find the instructions for the task on following 2 pages, the sketching task is highlighted in yellow.
- If you are not joining the zoom lesson the task for this week is on the next pages highlighted in green.

Friday 10th July at 11.15am

Log on to the zoom lesson using the following information:

Engineering Design	10/7/20 11.15am	Meeting ID: 897 0831 6196 Password: 8CUkw3	• *Pen* • *Pencil* • *Ruler* • *Lined paper* • Plain paper

- Today will be a continuation of the task from Tuesday, verbal feedback and improvements.
- If we finish this, we will look at moving on to learning some isometric drawing skills.

If you have any problems please email me:

L.adderley@st-antonys.com

Unit R107 – Developing and presenting engineering designs

Communicating design proposals

Task 1:

OCR Lifts Ltd has launched a design competition looking for developers to design lift call buttons of the future. The call buttons (an example of which is shown below) enable users to call the lift from the landing – indicating if they want to go up or down.

OCR Lifts Ltd have already undertaken market research including looking at legislation, codes and standards that the buttons must satisfy. Here is the product design specification they have issued for the competition:

OCR Lifts Ltd – Landing Call Button Product Design Specification	
Must be an UP and a DOWN push button one above the other (as picture) Buttons must be a minimum of 20mm in smallest dimension Buttons must contrast visually with background (to assist visually impaired)	Buttons should be raised to be identifiable by touch (facilitate tactile reading) Buttons must be damage/vandal resistant Buttons must be clearly identifiable as UP and DOWN There must be indicator lights to show if UP or DOWN button has been pressed

Working either on your own, develop **three** different designs that meet the product design specification, and select the best one. You may use whatever means you wish to select your final design, but you will need to justify why you think it is the best design to enter the competition.

Once you have chosen your final design selection, prepare a presentation to communicate this to the client – OCR Lifts Ltd. The presentation will be used by the client to judge the competition. The presentation could be in PowerPoint or might be a poster. Other imaginative presentation techniques could also be used. You need to think about including:

- Dimension information (include an image of your sketch as add dimension information)
- Material choice information, explain your choices
- Why you have decided to go with your final chosen idea and not the other 2? It would be good to include your other 2 ideas at this point to communicate why you didn't select them
- Where you have located the indicator light and why? What colour is it and why?
- What contrasting colour(s) have you used and why?
- Have you considered the visually impaired by making it identifiable by touch? Explain
- THE MORE DETAIL THE BETTER… FOR THIS UNIT, GOOD COMMUNICATION IS VITAL!