

Engineering activity log



**ASSIGN
BUSTER**

Activity Log On the first week of my Engineering project I had to think about what I should make. Some of the suggested ideas were ruled out, but the Electronic door lock was a good idea so I was able to stick with it. I began to do some research on how the frame of the door lock will look like and the material needed. I did most of the material research on the internet going to different websites such as Homemade, and Argos. Week 2 In the second week of work on my project I began to look at the mechanism of the door lock. I found out that solenoids are used in most electronic door locks as they can be pushed and pulled when wanted to.

I was fortunate that there was an unused solenoid, which I could use. Week 3 At this point of my project I had to make a start on the proposal. The proposal included things such as the design brief, how I am going to research, and what is necessary to research in the project. Week 4 I continued doing the project proposal, by the end of the week I was able to finish the project proposal and hand it in. Week 5 In week 5 I was able to make a start on the product research, at first I looked at other similar products on the internet.

After doing some research on similar products I began to do some research on what is going to be included on my product. The first thing I researched was numerical sequential system, after doing research on that I found out that it was vitally important to include it in the product. Also in the same week I was able to do some research on the type of solenoid I should include in the Electronic door lock, the main things I would look at in a solenoid was whether it was a push and pull one, the size and the amount of current needed to power the solenoid.

Week 6/7 On the 6th week I continued to do research on my project, this time I began to do search on the circuit of the door lock. I was able to gain some Ideas of what needed to be included in the circuit from the research, after doing so I began to make my own circuit on circuit wizards in week 7. The circuit I had included all the components needed and it was able function fully as I was able to check on software. Eek 8/9/10 In week 8 after finishing my product research I started on doing the initial ideas, I used solid works to design how my keypad would look like, I was not familiar with this software so it took me a while to get use to it, this inconvenience slowed me down ND it took me longer to design the keypad and the frame of the door lock. After making different designs I chose a design and developed that one. Week 10/11 In week 10 I was finally able to make a start on actually making the product, the first stage was to make the keypad; I made the keypad out of acrylic as it was simple to work with.

The first time I made the keypad was not sufficient in size; it was too small. I had to make another one but this time a bit larger. Week 12 In week 12 I made the side panels for the door lock and I was also able to attach the On the 13th week I was able to make a start on the circuit board, the circuit board as complicated as there were many parts to it, that's why it took me two weeks to complete it Week 15 On this week I was able to finish the making of the product, I attached the solenoid and the keypad to the circuit. I was also able to take pictures of product. Week 16 On this week I started and finished the evaluation of the project, I was also able to complete the theory part of the project and round it all together and put in order. I made a

booklet for the project including everything I needed inside such as the proposal, research and all my initial ideas and my developed ideas.