Faraday Challenge Days

**Planning and Reflections**

**Stage 1**

Our ideas for the prototype [Draw and write about your ideas here]

Which idea have you decided to develop?

…………………………………………………
…………………………………………………
…………………………………………………
…………………………………………………

Why? ………………………………
……………………………………
…………………………………………………
…………………………………………………

**Stage 1 Reflections**

This is the responsibility of the Team Leader to complete and can be used to help with your presentation in the final test.

1. Possible solutions for the prototype:
   1. ……………………………………………………
   2. ……………………………………………………
   3. ……………………………………………………

2. Possible solutions for the code:
   1. ……………………………………………………
   2. ……………………………………………………
   3. ……………………………………………………

3. What are the advantages and disadvantages of the system you are planning to use?
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………

4. How can errors in transmission be detected and corrected at the receiving end?
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………

5. What medium (light or sound) will be used to transmit the message? Is it the fastest medium for transmission? Does the speed at which the message travels through a medium make a difference?
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………
   …………………………………………………………………………………………………………………………

**Stage 2 Reflections**

We discussed the relative success of our chosen prototype and adapted it by ……………………………
…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

because …………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

The other ideas we thought of incorporating were …………………………………………………………………
…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

We did not do these because ……………………………………………………………………………………………
…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

The main reasons we chose our proposed solution include:

1. ………………………………………………………………………………………………………………………
2. ………………………………………………………………………………………………………………………
3. ………………………………………………………………………………………………………………………

This reveals how important we felt the following things were …………………………………………………………………
…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

We began our testing by ……………………………………………………………………………………………
…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

because ………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………
Stage 2: Reflections

Also provide responses to the following:
If this communications system were going to be built in real life, how would it be adapted to overcome the following:
Low visibility either due to continued weather conditions or line of sight being hindered by the mountain dividing the 2 communities
Noise interference from continued weather conditions
Distance between the 2 communities
Height of and distance around the mountain
Would any supporting frameworks need to be built to help overcome these potential issues? If so, what?

Stage 3: Reflections

What went well/not well? ...........................................................................................................................................
Why? ..............................................................................................................................................................
Were you pleased with your planning, development and testing?
What could you have changed?
What is something new you have learnt today?

The Presentation

What things are important to tell us in the 3-minute presentation? (Don’t forget to think about the science, technology, engineering and mathematics skills, knowledge and understanding you have used in the Challenge.)