**A2 COURSEWORK REPORT**

**FOLLOW THIS OR FAIL!**

**Sub titles**

**1. Circuit diagram**

**2. Component values.**

**3. Test procedure**

**4. Prediction of test outcomes**

**5. Test results**

**6. Analysis of tests results**

**7. Comparison to predictions**

**8. Impedance matching**

**Block Diagram + Quantitative Description of Whole Project / Quantitative Predictions**

**Specification**

**Brief Quantitative Description of Each SS i.e. must have numbers for everything**

Subsystem 1. Title

Circuit diagram of SS fully labelled with values etc

Prediction of what it will do based on numerical calculation of component values.

Test procedure.

Prediction of test outcomes tables/graphs.

Evidence of testing/photos

Test results/tables and graphs

Analysis of tests results

Comparison to predictions

Fault finding

Relevant research used.

Subsystem 1. Title

Circuit diagram of SS fully labelled with values etc

Prediction of what it will do based on numerical calculation of component values.

Test procedure.

Prediction of test outcomes tables/graphs.

Evidence of testing/photos

Test results/tables and graphs

Analysis of tests results

Comparison to predictions

Fault finding

Relevant research used.

Subsystem 1. Title

Circuit diagram of SS fully labelled with values etc

Prediction of what it will do based on numerical calculation of component values.

Test procedure.

Prediction of test outcomes tables/graphs.

Evidence of testing/photos

Test results/tables and graphs

Analysis of tests results

Comparison to predictions

Fault finding

Relevant research used.

**Subsystem 1. Title**

**Circuit diagram of SS fully labelled with values etc**

**Prediction of what it will do based on numerical calculation of component values.**

**Test procedure – circuit diagram with test equipment connected.**

**Prediction of test outcomes tables/graphs.**

**Test results/tables and graphs**

**Analysis of tests results**

**Comparison to predictions**

**Impedance matching**

Subsystem 1. Title

Circuit diagram of SS fully labelled with values etc

Prediction of what it will do based on numerical calculation of component values.

Test procedure.

Prediction of test outcomes tables/graphs.

Evidence of testing/photos

Test results/tables and graphs

Analysis of tests results

Comparison to predictions

Fault finding

Relevant research used.

**Fully Labelled Circuit Diagram of Whole Project inc All Component Values**

**Testing Whole Project**

**Description of test**

**Test results / Tables / Graphs**

**Analysis of results / Relate to Predictions/Specification**

**A-Level Electronics Task 2: Electronic System Student Guide**

|  |  |  |
| --- | --- | --- |
| ***System Planning*** | | |
| **Problem** | What, why, who, where. |  |
| Research of a specific example. |  |
| **Specification** | At least 4 qualitative ***and*** 4 quantitative system specifications (a list of 8). |  |
| Electronic parameters (e.g. time, frequency, current, voltage, power (inc. tolerances) |  |
| ***System Development*** | | |
| **Sub-systems** | At least 6 separately testable, (independently built and tested sub-systems (SS). |  |
| Must be both analogue and digital. |  |
| Two alternatives for 3 SS, with detailed reasons for chosen one. |  |
| Predicted behaviour of SS’s; (use equations, prediction graphs/tables etc.) |  |
| Fully labelled circuit diagrams for all SS’s. |  |
| Describe test procedures for all SS’s. Include circuit diagrams with TE in situ. |  |
| Record all test data; presented in tables and graphs etc. |  |
| Compare test data with predicted data. |  |
| Analyse how well SS performs compared to specification. |  |
| ***System Realisation*** | | |
| **Full System** | Full system (labelled) block diagram. |  |
| Full system (labelled) circuit diagram. |  |
| Complete component list. |  |
| Immaculate circuit (neat, colour coded etc.) |  |
| Risk assessment. |  |
| Full system testing plan, including diagram with TE in situ. |  |
| Full system test data (tables, graphs etc.) |  |
| Analyse test data compared with specification of full system. |  |
| Comprehensive user guide. |  |
| Explain interfacing between any two SS’s. |  |
| ***Evaluation*** | | |
| **Final System** | Overview of final system performance |  |
| Compare with initial specification. |  |
| Use correct terminology throughout. |  |
| Say how well the blocks work and how well signals transfer between blocks. |  |
| Three improvements for the final system. |  |
| Details of how and why these are improvements. |  |