

PROJ H3620: Project 3 (Avionic)

Module THI::::::::::::::::::::::::::::::::::::							
Credits: 5 NFQ Level: 7 Module Delivered In No Programmes Teaching & Learning Strategies: The following tools shall be used to teach this module + Practical project assignments designed using project based learning techniques - Schematic and PCB layout (CAD) software packages - Circuit design and test ubratel sessions - Electronic and PCB layout (CAD) software packages - Circuit design and test based learning techniques - Schematic and PCB layout (CAD) software packages - Circuit design and test ubratel sessions - Electronic and mechanical workshop sessions - Schematic , layout end dircuit simulation sessions in a computer laboratory Module Aim: To give the students the knowledge, competencies and skills necessary to complete an individual avionics project using the following procedure: Design and develop an avionic module; Draft aviation industry standard schematics. Generale PCB layout drawings. Generate all related documentation to build and test the project. Execute the assembly and testing of the project. Learning Outcomes To give the students the knowledge, complete the project design L01 Create a project plan using a Gantt chart L02 Clearly explain the circuits on stripboard and/or PCB using selected components L03 Construct and test the circuits on stripboard and/or PCB using selected components L04 Compare theoretical and actual project operation after final testing, showing specific calculations L05 Present the final project use clear presentational skills	Module Title:		Project 3 (Avionic)				
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Module Content & Assessment

Indicative Content

Health & Operational Safety

Set of safety procedures for personal safety Set of operational procedures to ensure correct equipment operation

Project Planning

Main project tasks for completion it by a specified completion date Gannt chart showing proposed tasks in chronological order

Project Design Design calculations and design decisions and trade-offs, Circuits and components and materials used to complete the project Schematics using industry standard symbols, Use of standard CAD systems to simulate the design;

PCB assembly using the fabricated PCB and selected components. Mechanical assembly required (for e.g. panel mounting, enclosure customisation).

Final Testing Comparison between the theoretical and actual project operation, showing specific calculations Problems or complications with the project design

Project Documentation

All relevant documents to operate the project correctly Final project report Project logbook as appropriate

Final Presentation

Basic operational theory behind the project Presentation of the final project showing the project in working order Use of clear presentational skills throughout

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

Project							
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date			
Project	All assessment will be practical assignment based.	1,2,3,4,5	100.00	n/a			

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



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Module Workload

Workload: Full Time					
Workload Type	Frequency	Average Weekly Learner Workload			
Practicals	Every Week	3.00			
Independent Learning	Every Week	0.50			
	Total Hours	3.50			