Countdown Timer

AS3.5 Portfolio Scaffold

The Portfolio Scaffold is used as a guide to help kids understand the stages and expectations of the assessment. The Assessment Task for the Electronics outcome and specifications will be given to you by your teacher. IMPORTANT if you follow this template you will need to have supporting evidence from a notebook or journal to evidence "iterative development"

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Project Brief

Identify the specifications for your electronics outcome
Describe the relevant implications and how these will be addressed
Do not be limited by the size of the box. Use more space if needed

Construct and test your electronics outcome

Evidence constructing, testing, and debugging your electronic line in the structure is a second construction of the structure in the structure is a second construction of the structure is a second c	electronics system on all input/output interfaces.
Potentiometer Draw or Sketch the Potentiometer interface using co	orrect circuit symbols
Sample Program Code used	
Testing/calibration of potentiometer	
potentiometer	Analog Readings

CD interface via I2C					
raw or Sketch the LCD interface using correct circuit symbols and wiring labels					
				_	
ample C++ code used					
ample of Feode used					

Real Time Clock interface via I2C					
Draw or Sketch the RTC interface using correct circuit symbols and wiring labels					
Sample C++ code used					

witch interfac	e	
aw or Sketch the	Switch interface using correct circuit symbols a	and wiring labels
ımple C++ code u	has	
	w code that turns an LED on/off or code that sta	arts a timer on an LCD. It is up to you.
re you dodin one	wedge that tarne an 229 on, on or older that ou	arto a timer on an 200. It is up to you.
sting of switch		
Input	What I expected the outputs to do?	What the outputs actually did?
Button press		

raw or Sketch the Neoplxel interface using correct circuit symbols and wiring labels					
ananta Outra ada wasad					
ample C++ code used					

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Show how you addressed the relevant implications within development
Do not be limited by the size of the box. Use more space if needed

Circuit schematics of the complete electronic system

Sketch a circuit schematic for your proposed electronic system, include correct circuit symbols and labels for components you select.
Do not be limited by the size of the box. Use more space if needed

Iterative improvement of the Electronics outcome

Software Standards and Maintainability o Functions o Readable and understandable code									
. Und	ExtendedUnd	rnal Softv able user erstandat	vare Libra Interface ble user ir	aries nput con	trols for				reset
Hai	rdware R o Imp	erstandak eliability roved Reg ch Debou	ulation /						

Purpose and function of components and interfaces

Include evidence that shows you are able to describe/explain/justify the interfaces and functions of the components of the systems used.

A photograph of your electronics system. Annotate your photographs with descriptions of:

- each component (what it does, how it functions)
- each interface (what it does, how it functions)

Explain the behaviour and function of the electronics outcome
C++ Program Functions
Potentiometer (Voltage Divider) and Arduino Analog to digital conversion
I2C communications and LCD interface and RTC interface
Switch debounce and software or hardware solutions to solve debouncing

ustify User Interf						
	ustify User Interface features used (control used to program timer, display system used to view timer)					
ustify methods u	sed to resolve switch debounce					