

- 2 The output level should be such that an adequate audio output is heard, from the ultra-sound monitor, with the simulator's level control set to mid-point.
- 3 The selected BPM LED should flash at that beat rate.
- 4 There should be an "Auto" mode which cycles through all BPM rates. Each rate should be output for 30 seconds.

Electronic APGAR Timer Project.

Hardware Specification.

Display

Display type:	LCD.
Reflective/transflective:	Reflective.
Backlit:	No.
Number of digits:	4.
Separator for Mins/Secs:	Colon.
Digit height:	17mm.
On-board driver:	No.

Processor

Type:	PIC with on-board LCD driver.
Software resilience:	On-board hardware watchdog timer.

Case

Type:	Handheld plastic.
Colour:	Preferably white.
Display cutout:	Yes.
Accepts keypad:	Yes.
Battery compartment:	Yes.
Spare battery compartment:	Preferably.
EMC protected:	

Keypad

Type:	Membrane.
Base colour:	
Number of keys:	3.
Key functions/legend:	
Key 1:	Start.
Key 2:	Stop.
Key 3:	Reset.
Key colours:	
Key 1:	Green.
Key 2:	Red.
Key 3:	

Sounder

Fitted:	Yes.
Type:	Low current piezo.

Battery

Type:	PP3.
Low battery indication:	Flashing 17mm high message "Lo Batt" plus intermittent sounder.
Battery life:	

Operating temperature

Range:	0 – 54 degrees C.
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Company legend

Text:

Peter Anderson
27th January 2004
20th February 2004
1st March 2004

Initial specification.
Keypad details added.
Maximum operating temperature specified by battery.