

Appendix D: Design Completion Form

TEAM (C)

To be completed by the lab supervisor during the time in the lab to record milestones. **This form is an EXAMPLE ONLY and you MUST edit it to identify your own milestones (10-15) that you will attempt to meet during the progression of your design. Think about MILESTONES (what you'll show/deliver) rather than TASKS (what you'll do). You should aim to have a few milestones per subsystem (which probably build on each other), plus a couple of system milestones reflecting system integration. A single copy of this form should be printed, on one sheet of Landscape A4 paper, and brought to each lab session. It will be finalised by 17:00, on Monday 4th March.**

Component of system/Milestone	Supervisor	Time/Date	Comments (all/part/none working; protoboard/constructed)
The back-end is proven to work using test data	SAB	12:00 / 25/2/19	Shown to be working for multiple angles up to 2000 Hz
The microphone and pre-amp output between 0 to 3.3V	SS	11:25 / 1/3/19	SUCCESSFUL OUTPUT USING 0-3.3V SPAN FOR AVERAGE SPOKEN VOICE - (ON PROTOBOARD) ON SIMULATED
ADC to MCU communications working at 50kHz	SS	10:21 / 1/3/19	SAMPLING AT > 50kHz DEMONSTRATED
The Buffer communicates with Back-end at over 120kb/s	SAB	12:30 / 1/3/19	Communication at 21.5 kb/s demonstrated
The back-end can calculate the angle to 9°	SS	12:40 / 4/3/19	SYNTHETIC DATA OF SINGLE SINE WAVE PRODUCES ACCURACY OF ~1°
The components fit in the case	SS	12:36 / 4/3/19	SUCCESSFUL ASSEMBLY OF CONSTRUCTED COMPONENTS INSIDE THE CASE.
The LED ring can display angle	SAB	16:00 / 4/3/19	Angle represented by LED ring tested using test data (microphones not working).
The WebUI can update at a rate greater than 60fps			
The Raspberry Pi can set load all required firmware and set-up on boot.		02/03 10:25	RPI boots, & (apparently) refashes the MCU which then starts
The device is fully constructed.	SS	16:35 / 4/3	
Backend will be able to output amplitude at a resolution of 8-bits.	SAB	16:06 / 4/3/19	Shown able to process test data. Real data not available due to failure of regulator.
Backend will be able to output frequency at a resolution of 100Hz.	SAB	15:45 / 4/3/19	Frequency values every 50 Hz
The LED ring and webUI can display frequency and amplitude data.			
After calibration the system rejects artificial ambient noise			
WebUI will be able to securely update the firmware of the system		04/03 10:30	load signed binary from web ui. send to rpi. rpi checks signature, & only refashes MCU if correct.

Milestones finalised by supervisor: S. GUNN Signed: [Signature] Date: 4/3/19

Prototype hardware handed over to: [Signature] Signed: [Signature] Date: 4/3/19

Other items returned to Lab support hatch and checked by: [Signature] Signed: [Signature] Date: [Signature]