)	0	Task Name			Duration	Start	Finish	Predecessors	Oct 8	8, '17 M	T W
1		Product developm	nent process		7 days	Mon 10/9/17	Tue 10/17/17		5	IVI	_ I   VV
2		Develop practic	cum project ideas		1 day	Mon 10/9/17	Mon 10/9/17				Eric,Pr
3		Setup Wiki for t	he pacticum project		1 day	Thu 10/12/17	Thu 10/12/17				
4	•	Complete prelir	minary system desigi	า	1 day	Tue 10/17/17	Tue 10/17/17				
5		Develop projec	t proposal		2 days	Fri 10/13/17	Mon 10/16/17	,			
6	•	Research pro	ject background		1 day	Fri 10/13/17	Fri 10/13/17				
7	•	Write draft o	f project background	d/proposal	1 day	Fri 10/13/17	Fri 10/13/17				
8	÷	Review draft	of project backgrou	nd/proposal	1 day	Sat 10/14/17	Sat 10/14/17				
9	÷	Revise draft of	of project backgroun	d/proposal	2 days	Sat 10/14/17	Mon 10/16/17				
10	•	Review revise	ed project backgrour	nd/proposal	1 day	Mon 10/16/17	Mon 10/16/17				
11	•	Approve proj	ect background/pro	posal	1 day	Mon 10/16/17	Mon 10/16/17				
12		Develop projec	t requirements docu	ıment	2 days 1 day	Mon 10/16/17	Tue 10/17/17				
13	•	Write draft o	f engineering require	ements		Mon 10/16/17	Mon 10/16/17				
14	•	Write draft o	Write draft of marketing requirments			Mon 10/16/17	Mon 10/16/17				
15	•		eering requirements		1 day	Mon 10/16/17	Mon 10/16/17				
16	•	Revise marke	eting requirements		1 day	Mon 10/16/17	Mon 10/16/17				
17	•	Link engineer	ring and marketing r	equirements	1 day	Tue 10/17/17	Tue 10/17/17				
18	•	Approve proj	ect requirements do	cument	1 day	Tue 10/17/17	Tue 10/17/17				
19		Complete prelimi	nary schematic		4 days	Sun 10/22/17	Wed 10/25/17	1			
20	Ť	Determine wha	t needs to be included on fabricated board		3 days	Sun 10/22/17	Tue 10/24/17				
21	•	Create the preli	minary schematic		1 day	Tue 10/24/17	Tue 10/24/17				
22	•	Review prelimi	nary schematic		1 day	Wed 10/25/17	Wed 10/25/17				
			Task	N	Manual Task		Deadline	•			
			Split		Ouration-only		Baseline	_			
			Milestone	<b>•</b>	Manual Summa	ry Rollup	Baseline N	4ilestone ♦			
-		ject Calendar	Summary		Manual Summa	ry	Baseline S	ummary <b>L</b>			
Date:	Fri 11	/10/17	Project Summary		Start-only	Е	Progress	_			
			Inactive Task	F	inish-only	3	Manual P	ogress			
			Inactive Milestone	♦ E	external Tasks						
			Inactive Summary		external Milesto	ne 💠					
					Page 1						

D	A	Task Name			Duration	Start	Finish	Predecessors	Oct 8	, '17 M	т   м	
23	Ť	Approve preliminary schematic			1 day	Wed 10/25/17	Wed 10/25/17		3	IVI		
24		Complelete final s	chematic		2 days	Fri 10/27/17	Sun 10/29/17	19				
25	•	Design test points and indicator lights Create final schematic Review final schematic Approve final schematic  Complete design layout Create priliminary layout		1 day	Fri 10/27/17	Fri 10/27/17						
26	•			1 day	Fri 10/27/17	Fri 10/27/17						
27	•			1 day	Sun 10/29/17	Sun 10/29/17						
28	÷			1 day	Sun 10/29/17	Sun 10/29/17						
29				4 days	Wed 11/1/17	Sat 11/4/17	24					
30				1 day	Wed 11/1/17	Wed 11/1/17						
31	•	Review prilimina	ary layout		1 day	Wed 11/1/17	Wed 11/1/17					
32	•	Create final layo	out		2 days	days Thu 11/2/17 Fri 11/3/17	Fri 11/3/17					
33		Review final lay	out		1 day	Fri 11/3/17	Fri 11/3/17					
34	•	Revise final layo	out		1 day	Sat 11/4/17	Sat 11/4/17					
35	•	Approve final la	yout		1 day	day Sat 11/4/17 Sat 11/4/17						
36		Develop detailed	system design		2 days	Fri 11/3/17	Sat 11/4/17					
37	•	Draw high level	block diagram		1 day	Fri 11/3/17	Fri 11/3/17					
38	Ť	Review high lev	el block diagram		1 day	Fri 11/3/17	Fri 11/3/17					
39	•	Draw next-level	block diagram		1 day	Fri 11/3/17	Fri 11/3/17					
40	Ť	Review next-lev	el block diagram		1 day	Fri 11/3/17	Fri 11/3/17					
41	Ť	Create top-leve next-level block	l block diagram of ea diagram	ach module in	1 day	Sat 11/4/17	Sat 11/4/17					
42		Review top-leve	el block diagram		1 day	Sat 11/4/17	Sat 11/4/17					
43	•	Revise the detail	iled system design		1 day	Sat 11/4/17	Sat 11/4/17					
44		Approve detaile	d systrm design		1 day	Sat 11/4/17	Sat 11/4/17					
			Task		Manual Task		Deadline	•				
			Split		Duration-only		Baseline	_				
			Milestone	<b>•</b>	Manual Summa	y Rollup	Baseline M	lestone $\Diamond$				
-		oject Calendar	Summary		Manual Summa	ry l	Baseline Su	mmary <b>L</b>				
Date:	Fri 11	1/10/17	Project Summary		Start-only	Е	Progress	_				
			Inactive Task		Finish-only	3	Manual Pro	gress				
			Inactive Milestone		External Tasks							
			Inactive Summary		External Milesto	ne 💠						

D	0	Task Name			Duration	Start	Finish	Predecessors	Oct 8	3, '17 M	т	w
45		Test/Debug pract	icum project		3 days	Wed 11/29/17	Fri 12/1/17	75	3	IVI		V
46		Create detailed	test case		1 day		Wed 11/29/17					
47		Complete design measurements  Measure the heads-up display  Measure the PCB against specifications		1 day	Wed 11/29/17	Wed 11/29/17						
48	•			1 day	Wed 11/29/17	Wed 11/29/17						
49	•			1 day	Wed 11/29/17	Wed 11/29/17						
50	•	Weigh the fir	nal design against spo	ecifications	1 day	Wed 11/29/17	Wed 11/29/17					
51	Ť	Test refresh rate and heads-up display for functionability  Test device over a range of temperatures		1 day	Fri 12/1/17	Fri 12/1/17						
52	<b>•</b>			1 day	Fri 12/1/17	Fri 12/1/17						
53	•	Test battery cap	pacity for 2 hours		1 day	Fri 12/1/17	Fri 12/1/17					
54	•	Test thermal im	naging between rang	e of 1ft to 20ft	1 day	Fri 12/1/17	Fri 12/1/17					
55		Present practicum	n project		2 days	Sat 12/2/17	Sun 12/3/17	45				
56	•	Develop fully w	orking prototype		1 day	Sat 12/2/17	Sat 12/2/17					
57	•	Develop a power point presentation		2 days	Sat 12/2/17	Sun 12/3/17						
58	Ť	Practice presen	tation		1 day	Sun 12/3/17	7 Sun 12/3/17					
59		AVR programming	g		2 days	Fri 11/3/17	Sat 11/4/17					
60	•	Coding through	Arduino controller		2 days	Fri 11/3/17	Sat 11/4/17					
61	Ť	Coding with the	e circuit		1 day	Sat 11/4/17	Sat 11/4/17					
62	Ť	Build ISPC using	g QTFP adapter		1 day	Sat 11/4/17	Sat 11/4/17					
63		Design battery su	pply		2 days	Tue 10/24/17	Wed 10/25/17					
64	Ť	Determine type	e of power supply to	use	1 day	Tue 10/24/17	Tue 10/24/17					
65	Ť	Develop protec	tions		1 day	Tue 10/24/17	Tue 10/24/17					
66	Ť	Implement the	design in the circuit		2 days	Tue 10/24/17	Wed 10/25/17					
			Task		Manual Task		Deadline	•				
			Split		Duration-only		Baseline	_				
			Calendar Summary		Manual Summary Rollup		Baseline Milestone					
		oject Calendar			Manual Summary	/	Baseline Su	mmary 🖳				
ate:	Fri 11	1/10/17	Project Summary		Start-only	Е	Progress	_				
			Inactive Task		Finish-only	3	Manual Pro	gress				
			Inactive Milestone	active Milestone								
			Inactive Summary		External Mileston	ne 🔷						
			1		Page 3							

D		Task Name	Duration	Start	Finish	Predecessors	Oct 8, '17				
67	0	Dovalon physical ensings	4 days	Man 11/20/17	Th., 11/22/17	75	S	М	_T	W	
07		Develop physical casings	4 days	Mon 11/20/17	Thu 11/23/17	/5					
68	•	Measure the casing	1 day	Mon 11/20/17	Mon 11/20/17						
69	Ť	Create OBJ files	1 day	Mon 11/20/17	Mon 11/20/17						
70		3D print the casing	2 days	Wed 11/22/17	Thu 11/23/17						
71		Coding design	3 days	Thu 10/19/17	Sat 10/21/17	1					
72		Review OLED screen library	1 day	Thu 10/19/17	Thu 10/19/17						
73		Review thermal imaging camera library	1 day	Thu 10/19/17	Thu 10/19/17						
74	•	Review processor manual	2 days	Fri 10/20/17	Sat 10/21/17						
75		Develop optics for the heads-up display	5 days	Mon 11/13/17	Fri 11/17/17						
76	•	Create test stand	1 day	Mon 11/13/17	Mon 11/13/17						
77	•	Measure alignment	1 day	Mon 11/13/17	Mon 11/13/17						
78	•	Create final structure	5 days	Mon 11/13/17	Fri 11/17/17						
79	•	Develop and manufacture a test sturcture	1 day	Fri 11/17/17	Fri 11/17/17						
80											

















