

## Work Breakdown Structure with Durations

ID	Task Mod	Task Name	Duration	Start	Finish	Predecessors
1		<b>1 DELIVERYMEDS</b>	<b>220 days</b>	<b>Tue 1/5/21</b>	<b>Wed 11/17/21</b>	
2						
3		<b><u>1.1 Design</u></b>	<b>72 days</b>	<b>Tue 1/5/21</b>	<b>Fri 4/16/21</b>	
4		<b>1.1.1 Project Mgmt.</b>	<b>71.25 days</b>	<b>Tue 1/5/21</b>	<b>Fri 4/16/21</b>	
5		<b>1.1.1.1 Client</b>	<b>71.25 days</b>	<b>Tue 1/5/21</b>	<b>Fri 4/16/21</b>	
6		<b>1.1.1.1.1 Contract</b>	<b>11 days</b>	<b>Tue 1/5/21</b>	<b>Wed 1/20/21</b>	
7		1.1.1.1.1.1 Identifying Scope	2 days	Tue 1/5/21	Wed 1/6/21	
8		1.1.1.1.1.2 Creating Budget	2 days	Thu 1/7/21	Fri 1/8/21	7
9		1.1.1.1.1.3 Creating Timeline	2 days	Mon 1/11/21	Tue 1/12/21	8
10		1.1.1.1.1.4 Create Indemnification/Liability Clauses	1 day	Wed 1/13/21	Wed 1/13/21	9,39,40
11		1.1.1.1.1.5 Finalize Contract	4 days	Thu 1/14/21	Wed 1/20/21	10
12		<b>1.1.1.1.2 Communications</b>	<b>59.25 days</b>	<b>Fri 1/22/21</b>	<b>Fri 4/16/21</b>	
13		<b>1.1.1.1.2.1 Biweekly Client Meeting</b>	<b>59.25 days</b>	<b>Fri 1/22/21</b>	<b>Fri 4/16/21</b>	<b>11</b>
21		<b>1.1.1.2 Team</b>	<b>56.25 days</b>	<b>Thu 1/21/21</b>	<b>Mon 4/12/21</b>	
22		<b>1.1.1.2.1 Staff</b>	<b>5 days</b>	<b>Thu 1/21/21</b>	<b>Wed 1/27/21</b>	
23		1.1.1.2.1.1 Select Team	3 days	Thu 1/21/21	Mon 1/25/21	11
24		1.1.1.2.1.2 Team Building Exercises	2 days	Tue 1/26/21	Wed 1/27/21	23
25		<b>1.1.1.2.2 Communications</b>	<b>49.25 days</b>	<b>Mon 2/1/21</b>	<b>Mon 4/12/21</b>	
37		<b>1.1.1.3 Project</b>	<b>3 days</b>	<b>Thu 1/7/21</b>	<b>Mon 1/11/21</b>	
38		<b>1.1.1.3.1 Risk Assessment</b>	<b>3 days</b>	<b>Thu 1/7/21</b>	<b>Mon 1/11/21</b>	
39		1.1.1.3.1.1 Perform Risk Register	3 days	Thu 1/7/21	Mon 1/11/21	7
40		1.1.1.3.1.2 Establish Contingency Plans	2 days	Thu 1/7/21	Fri 1/8/21	7
41		<b>1.1.2 Drone Requirements</b>	<b>56 days</b>	<b>Thu 1/28/21</b>	<b>Fri 4/16/21</b>	
42		<b>1.1.2.1 Permitting</b>	<b>3 days</b>	<b>Thu 1/28/21</b>	<b>Mon 2/1/21</b>	
43		<b>1.1.2.1.1 FAA</b>	<b>3 days</b>	<b>Thu 1/28/21</b>	<b>Mon 2/1/21</b>	
44		1.1.2.1.1.1 Regulatory Research	1 day	Thu 1/28/21	Thu 1/28/21	11,24
45		1.1.2.1.1.2 Permitting Documentation	2 days	Thu 1/28/21	Fri 1/29/21	11,24
46		1.1.2.1.1.3 Meeting with FAA Representatives	1 day	Mon 2/1/21	Mon 2/1/21	44,45
47		<b>1.1.2.2 Packaging</b>	<b>56 days</b>	<b>Thu 1/28/21</b>	<b>Fri 4/16/21</b>	
48		<b>1.1.2.2.1 Bubble Wrapping</b>	<b>45 days</b>	<b>Thu 1/28/21</b>	<b>Thu 4/1/21</b>	
49		1.1.2.2.1.1 Design Bubble Wrapping System	45 days	Thu 1/28/21	Thu 4/1/21	11,24
50		<b>1.1.2.2.2 Temperature Control</b>	<b>53 days</b>	<b>Thu 1/28/21</b>	<b>Tue 4/13/21</b>	
51		1.1.2.2.2.1 Design Temperature Control System	53 days	Thu 1/28/21	Tue 4/13/21	11,24
52		<b>1.1.2.2.3 Size and Weight Constraints</b>	<b>3 days</b>	<b>Wed 4/14/21</b>	<b>Fri 4/16/21</b>	
53		1.1.2.2.3.1 Calculate maximum size and weight allowed	3 days	Wed 4/14/21	Fri 4/16/21	49,51
54		<b>1.1.3 Tech</b>	<b>55 days</b>	<b>Thu 1/28/21</b>	<b>Thu 4/15/21</b>	
55		<b>1.1.3.1 App &amp; Interface</b>	<b>20 days</b>	<b>Thu 1/28/21</b>	<b>Thu 2/25/21</b>	
56		<b>1.1.3.1.1 Design App Features</b>	<b>20 days</b>	<b>Thu 1/28/21</b>	<b>Thu 2/25/21</b>	
57		1.1.3.1.1.1 Customer Order Algorithm	3 days	Thu 1/28/21	Mon 2/1/21	11,24
58		1.1.3.1.1.2 Customer Preference (Delivery) Algorithm	2 days	Tue 2/2/21	Wed 2/3/21	57

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ID	Task Mod	Task Name	Duration	Start	Finish	Predecessors
59		1.1.3.1.1.3 Drone Request Algorithm	2 days	Thu 2/4/21	Fri 2/5/21	58
60		1.1.3.1.1.4 Order Confirmation Algorithm	3 days	Mon 2/8/21	Wed 2/10/21	59
61		1.1.3.1.1.5 Communication with Server Algorithm	10 days	Thu 2/11/21	Thu 2/25/21	60
62		1.1.3.2 Security	45 days	Thu 2/11/21	Thu 4/15/21	
63		1.1.3.2.1 HIPAA	15 days	Fri 2/26/21	Thu 3/18/21	
64		1.1.3.2.1.1 Design Code for Customer Identity Protection	15 days	Fri 2/26/21	Thu 3/18/21	61
65		1.1.3.2.2 Wilmont's Business Information	45 days	Thu 2/11/21	Thu 4/15/21	
66		1.1.3.2.2.1 Design Algorithm for Wilmont's Business Information Protection	15 days	Fri 3/19/21	Thu 4/8/21	64
67		1.1.3.2.2.2 Weekly Meeting with William Scott	45 days	Thu 2/11/21	Thu 4/15/21	11,24
78		1.2 Build	63 days	Mon 4/19/21	Fri 7/16/21	
79		1.2.1 Project Mgmt.	63 days	Mon 4/19/21	Fri 7/16/21	
80		1.2.1.1 Client	59 days	Fri 4/23/21	Fri 7/16/21	
81		1.2.1.1.1 Communications	59 days	Fri 4/23/21	Fri 7/16/21	
82		1.2.1.1.1.1 Biweekly Client Meeting	59 days	Fri 4/23/21	Fri 7/16/21	46,53,66
90		1.2.1.2 Team	62 days	Mon 4/19/21	Thu 7/15/21	
91		1.2.1.2.1 Managing Test Staff	0.5 days	Wed 5/5/21	Wed 5/5/21	
92		1.2.1.2.1.1 Quarterly Staff Evaluation	0.5 days	Wed 5/5/21	Wed 5/5/21	46,53,66
94		1.2.1.2.2 Quality Assurance	62 days	Mon 4/19/21	Thu 7/15/21	
95		1.2.1.2.2.1 Weekly Cost Analysis Report	59 days	Thu 4/22/21	Thu 7/15/21	46,53,66
109		1.2.1.2.2.2 Weekly Staff Meeting	34.25 days	Mon 4/19/21	Mon 6/7/21	46,53,66
129		1.2.1.2.3 Quality Control	31.13 days	Mon 4/19/21	Wed 6/2/21	
130		1.2.1.2.3.1 In-Progress Code Checks	31.13 days	Mon 4/19/21	Wed 6/2/21	46,53,66
148		1.2.2 Drone Prototype	63 days	Mon 4/19/21	Fri 7/16/21	
149		1.2.2.1 Additional Features	63 days	Mon 4/19/21	Fri 7/16/21	
150		1.2.2.1.1 Bubble Wrapping	25 days	Mon 4/19/21	Fri 5/21/21	
151		1.2.2.1.1.1 Manufacture bubble wrapping parts	21 days	Mon 4/19/21	Mon 5/17/21	46,53,66
152		1.2.2.1.1.2 Install bubble wrapping parts	4 days	Tue 5/18/21	Fri 5/21/21	151
153		1.2.2.1.2 Temperature Control	34 days	Tue 5/18/21	Tue 7/6/21	
154		1.2.2.1.2.1 Manufacture temperature control parts	30 days	Tue 5/18/21	Tue 6/29/21	151
155		1.2.2.1.2.2 Install temperature control parts	4 days	Wed 6/30/21	Tue 7/6/21	154
156		1.2.2.1.3 Drone Finishes	8 days	Wed 7/7/21	Fri 7/16/21	
157		1.2.2.1.3.1 Painting prototype drones	5 days	Wed 7/7/21	Tue 7/13/21	152,155
158		1.2.2.1.3.2 Applying logos on drones	3 days	Wed 7/14/21	Fri 7/16/21	157
159		1.2.3 App Development	25 days	Mon 4/19/21	Fri 5/21/21	
160		1.2.3.1 Customer Order Coding	5 days	Mon 4/19/21	Fri 4/23/21	46,53,66
161		1.2.3.2 Customer Preference (Delivery) Coding	2 days	Mon 4/26/21	Tue 4/27/21	160
162		1.2.3.3 Drone Request Coding	5 days	Wed 4/28/21	Tue 5/4/21	161
163		1.2.3.4 Order Confirmation Coding	1 day	Wed 5/5/21	Wed 5/5/21	162
164		1.2.3.5 Communication with Server Coding	12 days	Thu 5/6/21	Fri 5/21/21	163
165		1.2.4 Security	19 days	Mon 5/24/21	Fri 6/18/21	

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ID	Task Mod	Task Name	Duration	Start	Finish	Predecessors
166		1.2.4.1 Coding for Customer Identity Protection	10 days	Mon 5/24/21	Mon 6/7/21	164
167		1.2.4.2 Coding for Wilmont's Business Information Protection	9 days	Tue 6/8/21	Fri 6/18/21	166
168		<b>1.3 Test</b>	<b>59 days</b>	<b>Mon 7/19/21</b>	<b>Fri 10/8/21</b>	
169		<b>1.3.1 Project Mgmt.</b>	<b>54.25 days</b>	<b>Mon 7/19/21</b>	<b>Mon 10/4/21</b>	
170		<b>1.3.1.1 Client</b>	<b>49.25 days</b>	<b>Fri 7/23/21</b>	<b>Fri 10/1/21</b>	
171		<b>1.3.1.1.1 Communications</b>	<b>49.25 days</b>	<b>Fri 7/23/21</b>	<b>Fri 10/1/21</b>	
172		<b>1.3.1.1.1.1 Biweekly Client Meeting</b>	<b>49.25 days</b>	<b>Fri 7/23/21</b>	<b>Fri 10/1/21</b>	158,167
179		<b>1.3.1.2 Team</b>	<b>54.25 days</b>	<b>Mon 7/19/21</b>	<b>Mon 10/4/21</b>	
180		<b>1.3.1.2.1 Staff</b>	<b>0.5 days</b>	<b>Wed 8/4/21</b>	<b>Wed 8/4/21</b>	
181		<b>1.3.1.2.1.1 Quarterly Staff Evaluation</b>	<b>0.5 days</b>	<b>Wed 8/4/21</b>	<b>Wed 8/4/21</b>	158,167
183		<b>1.3.1.2.2 Communications</b>	<b>54.25 days</b>	<b>Mon 7/19/21</b>	<b>Mon 10/4/21</b>	
184		<b>1.3.1.2.2.1 Weekly Staff Meeting</b>	<b>54.25 days</b>	<b>Mon 7/19/21</b>	<b>Mon 10/4/21</b>	158,167
196		<b>1.3.2 Drone Testing</b>	<b>59 days</b>	<b>Mon 7/19/21</b>	<b>Fri 10/8/21</b>	
197		<b>1.3.2.1 Flight</b>	<b>49 days</b>	<b>Mon 7/19/21</b>	<b>Fri 9/24/21</b>	
198		<b>1.3.2.1.1 Drone Takeoff</b>	<b>15 days</b>	<b>Mon 7/19/21</b>	<b>Fri 8/6/21</b>	
199		<b>1.3.2.1.1.1 Test drone takeoff at DroneTech</b>	<b>5 days</b>	<b>Mon 7/19/21</b>	<b>Fri 7/23/21</b>	158,167
200		<b>1.3.2.1.1.2 Test drone takeoff in field</b>	<b>10 days</b>	<b>Mon 7/26/21</b>	<b>Fri 8/6/21</b>	199
201		<b>1.3.2.1.2 Weather Simulation</b>	<b>15 days</b>	<b>Mon 8/9/21</b>	<b>Fri 8/27/21</b>	
202		<b>1.3.2.1.2.1 Simulate rainy &amp; windy flight at DroneTech</b>	<b>10 days</b>	<b>Mon 8/9/21</b>	<b>Fri 8/20/21</b>	200
203		<b>1.3.2.1.2.2 Fly drone in field on rainy day</b>	<b>5 days</b>	<b>Mon 8/23/21</b>	<b>Fri 8/27/21</b>	202
204		<b>1.3.2.1.3 Geographical Constraints</b>	<b>19 days</b>	<b>Mon 8/30/21</b>	<b>Fri 9/24/21</b>	
205		<b>1.3.2.1.3.1 Flight with obstructions at DroneTech</b>	<b>5 days</b>	<b>Mon 8/30/21</b>	<b>Fri 9/3/21</b>	203
206		<b>1.3.2.1.3.2 Simulate flight in urban region of Gainesville</b>	<b>14 days</b>	<b>Tue 9/7/21</b>	<b>Fri 9/24/21</b>	205
207		<b>1.3.2.2 Package Delivery</b>	<b>10 days</b>	<b>Mon 9/27/21</b>	<b>Fri 10/8/21</b>	
208		<b>1.3.2.2.1 Successful Delivery</b>	<b>5 days</b>	<b>Mon 9/27/21</b>	<b>Fri 10/1/21</b>	
209		<b>1.3.2.2.1.1 Test flight at DroneTech, measure dropoff accuracy</b>	<b>5 days</b>	<b>Mon 9/27/21</b>	<b>Fri 10/1/21</b>	206
210		<b>1.3.2.2.2 Integrity of Product Delivered</b>	<b>5 days</b>	<b>Mon 10/4/21</b>	<b>Fri 10/8/21</b>	
211		<b>1.3.2.2.2.1 Test flight at DroneTech, investigate product integrity</b>	<b>5 days</b>	<b>Mon 10/4/21</b>	<b>Fri 10/8/21</b>	209
212		<b>1.3.3 App Testing</b>	<b>45 days</b>	<b>Mon 7/19/21</b>	<b>Mon 9/20/21</b>	
213		<b>1.3.3.1 User Interface</b>	<b>15 days</b>	<b>Mon 7/19/21</b>	<b>Fri 8/6/21</b>	
214		<b>1.3.3.1.1 Ordering</b>	<b>5 days</b>	<b>Mon 7/19/21</b>	<b>Fri 7/23/21</b>	
215		<b>1.3.3.1.1.1 Perform test order</b>	<b>5 days</b>	<b>Mon 7/19/21</b>	<b>Fri 7/23/21</b>	158,167
216		<b>1.3.3.1.2 Drone Preference</b>	<b>5 days</b>	<b>Mon 7/26/21</b>	<b>Fri 7/30/21</b>	
217		<b>1.3.3.1.2.1 Perform test drone opt-in</b>	<b>5 days</b>	<b>Mon 7/26/21</b>	<b>Fri 7/30/21</b>	215
218		<b>1.3.3.1.3 Address Approval</b>	<b>3 days</b>	<b>Mon 8/2/21</b>	<b>Wed 8/4/21</b>	
219		<b>1.3.3.1.3.1 Perform test address input</b>	<b>3 days</b>	<b>Mon 8/2/21</b>	<b>Wed 8/4/21</b>	217
220		<b>1.3.3.1.4 Order Confirmation</b>	<b>2 days</b>	<b>Thu 8/5/21</b>	<b>Fri 8/6/21</b>	
221		<b>1.3.3.1.4.1 Finish test order, receive confirmation</b>	<b>2 days</b>	<b>Thu 8/5/21</b>	<b>Fri 8/6/21</b>	219
222		<b>1.3.3.2 Wilmont's Interface</b>	<b>30 days</b>	<b>Mon 8/9/21</b>	<b>Mon 9/20/21</b>	
223		<b>1.3.3.2.1 Perform test with Wilmont's on order receival</b>	<b>15 days</b>	<b>Mon 8/9/21</b>	<b>Fri 8/27/21</b>	221

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ID	Task Mod	Task Name	Duration	Start	Finish	Predecessors
224		1.3.3.2.2 Perform test with Wilmont's on order transmittal	15 days	Mon 8/30/21	Mon 9/20/21	223
225		<b>1.4 Implement</b>	26 days	Tue 10/12/21	Wed 11/17/21	
226		<b>1.4.1 Project Mgmt.</b>	23.25 days	Tue 10/12/21	Mon 11/15/21	
227		<b>1.4.1.1 Client</b>	22.25 days	Tue 10/12/21	Fri 11/12/21	
228		<b>1.4.1.1.1 Communications</b>	19.25 days	Fri 10/15/21	Fri 11/12/21	
229		<b>1.4.1.1.1.1 Biweekly Client Meeting</b>	19.25 days	Fri 10/15/21	Fri 11/12/21	211,224
233		<b>1.4.1.1.2 Approval</b>	5 days	Tue 10/12/21	Mon 10/18/21	
234		1.4.1.1.2.1 Obtain approval of App	5 days	Tue 10/12/21	Mon 10/18/21	224,211
235		1.4.1.1.2.2 Obtain approval of Prototype Drones	5 days	Tue 10/12/21	Mon 10/18/21	224,211
236		<b>1.4.1.2 Team</b>	19.25 days	Mon 10/18/21	Mon 11/15/21	
237		<b>1.4.1.2.1 Staff</b>	0.5 days	Wed 11/3/21	Wed 11/3/21	
238		<b>1.4.1.2.1.1 Quarterly Staff Evaluation</b>	0.5 days	Wed 11/3/21	Wed 11/3/21	224,211
240		<b>1.4.1.2.2 Communications</b>	19.25 days	Mon 10/18/21	Mon 11/15/21	
241		<b>1.4.1.2.2.1 Weekly Staff Meeting</b>	19.25 days	Mon 10/18/21	Mon 11/15/21	224,211
247		<b>1.4.2 Drone Implementation</b>	14 days	Tue 10/19/21	Fri 11/5/21	
248		<b>1.4.2.1 Pharmacy</b>	14 days	Tue 10/19/21	Fri 11/5/21	
249		<b>1.4.2.1.1 Training on drone use</b>	14 days	Tue 10/19/21	Fri 11/5/21	
250		1.4.2.1.1.1 Providing prototypes to pharmacies	2 days	Tue 10/19/21	Wed 10/20/21	235
251		1.4.2.1.1.2 Briefing on drone handling	2 days	Thu 10/21/21	Fri 10/22/21	250
252		1.4.2.1.1.3 Interactive Drone Training	10 days	Mon 10/25/21	Fri 11/5/21	251
253		<b>1.4.2.2 Wilmont's</b>	10 days	Tue 10/19/21	Mon 11/1/21	
254		1.4.2.2.1 Provide documentation on operation of drones	1 day	Tue 10/19/21	Tue 10/19/21	235
255		1.4.2.2.2 Interactive virtual workshop on operation of drones	5 days	Thu 10/21/21	Wed 10/27/21	250,254
256		1.4.2.2.3 Providing information on repairs & maintenance	1 day	Thu 10/28/21	Thu 10/28/21	255
257		1.4.2.2.4 Interactive virtual workshops on repair & maintenance	2 days	Fri 10/29/21	Mon 11/1/21	256
258		<b>1.4.3 App Implementation</b>	11 days	Tue 11/2/21	Wed 11/17/21	
259		<b>1.4.3.1 Pharmacy Staff</b>	6 days	Mon 11/8/21	Tue 11/16/21	
260		<b>1.4.3.1.1 Training Pharmacy Staff on app use</b>	5 days	Mon 11/8/21	Mon 11/15/21	
261		1.4.3.1.1.1 Organizing interactive app training workshops	1 day	Mon 11/8/21	Mon 11/8/21	234,252
262		1.4.3.1.1.2 Training pharmacy staff on information transfer	4 days	Tue 11/9/21	Mon 11/15/21	261
263		<b>1.4.3.1.2 Provide documentation to pharmacy</b>	1 day	Tue 11/16/21	Tue 11/16/21	
264		1.4.3.1.2.1 Do's and Dont's	1 day	Tue 11/16/21	Tue 11/16/21	262
265		<b>1.4.3.2 Wilmont's Staff</b>	11 days	Tue 11/2/21	Wed 11/17/21	
266		<b>1.4.3.2.1 Training Wilmont's Staff on app use</b>	6 days	Tue 11/2/21	Tue 11/9/21	
267		1.4.3.2.1.1 Providing Wilmont staff with documentation on app operation	1 day	Tue 11/2/21	Tue 11/2/21	257,234
268		1.4.3.2.1.2 Training Wilmont's staff on information transfer to DroneTech	5 days	Wed 11/3/21	Tue 11/9/21	267
269		<b>1.4.3.2.2 Making Wilmont's app update available</b>	1 day	Wed 11/17/21	Wed 11/17/21	
270		1.4.3.2.2.1 Submitting final app update to App Store/Google Store.	1 day	Wed 11/17/21	Wed 11/17/21	268,264