

# EV3 BOOK 2

# EV3



Name :



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# EV3 WORKBOOK 2

## SECTION 1 – DAISY CHAINING

Pg	Task #	Main Areas	E	M	D	± Times	Need / Model / Sensors	Mat	Group
1	Intro	EV3 Bricks				10 mins			
2	Intro	EV3 Bricks				10 mins			
3	QTask 1	EV3 Bricks				5 mins	2xEV3 + cable	various	Partner
3	QTask 2	EV3 Bricks				5 mins	2xEV3 + cable	various	Partner
3	QTask 3	EV3 Bricks				10 mins	2xEV3 + cable	various	Partner
3	QTask 4	EV3 Bricks				10 mins	2xEV3 + cable	various	Partner
4	QTask 5	EV3 Bricks				10 mins	Build: switch	various	Partner
4	QTask 6	EV3 Bricks				10 mins	Build: switch	various	Partner
4	QTask 7	EV3 Bricks				10 mins	Build: switch	various	Partner
5	QTask 8	EV3 Bricks				10 mins	Build: sensor	colour	Partner
5	QTask 9	EV3 Bricks				10 mins	Build: sensor	colour	Partner
5	QTask 10	EV3 Bricks				10 mins	Build: sensor	touch	Partner
6	QTask 11	EV3 Bricks				20 mins	Build: control	touch x 4	Groups
6	QTask 12	EV3 Bricks				20 mins	Build: control	touch x 4	Groups
6	QTask 13	EV3 Bricks				20 mins	Build: control	touch x 4	Groups
7	QTask 14	EV3 Bricks				30 mins	Build: b2b	various	Groups
7	QTask 15	EV3 Bricks				30 mins	Build: b2b	various	Groups
7	QTask 16	EV3 Bricks				30 mins	Build: b2b	various	Groups

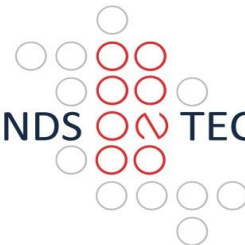
± 260 mins



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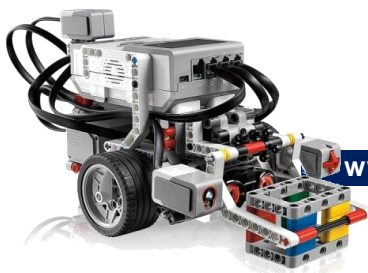


# EV3 WORKBOOK 2

## SECTION 2 – MUSIC

Pg	Task #	Main Areas	E	M	D	± Times	Need / Model / Sensors	Mat	Group
8	Task 1	Loop # of times	•			10 mins	Driving Base colour	•	
8	Task 2	Need for data storage				15 mins	Driving Base colour	•	
8	Task 3	Rotations / Degrees / Time	•			20 mins	Driving Base	•	Own/Par
9	Task 4	Drive control square	•			15 mins	Driving Base	•	
10	Task 5	Drive control circle(s)	•			15 mins	Driving Base	•	
<b>11 Introduction to Music</b>									
11	Task 6	Music playing notes	•			10 mins	EV3		
<b>12 Notes and Bars</b>									
13	Task 7	Music notes and bars	•			10 mins	EV3		
14	Task 8	Music notes and bars	•			15 mins	EV3		
15	Task 9	Music music template (4)		•		15 mins	EV3		
16	Task 10	Music music template (8)		•		15 mins	EV3		
17	Task 11	Music song from template		•		15 mins	EV3		
17	Task 12	Music complete song	•			5 mins	EV3		
17	Task 13	Music using templates		•		15 mins	EV3		
18	Task 14	Music b flat		•		15 mins	EV3		
18	Task 15	Music tempo		•		15 mins	EV3		
19	Task 16	Music tempo		•		15 mins	EV3		
19	Task 17	Music templates / tempo		•		15 mins	EV3		
20	Task 18	Music song from sheet music		•		20 mins	EV3		Groups
20	Task 19	Music song from sheet music		•		20 mins	EV3		Groups
21	Task 20	Music song from sheet music		•		20 mins	EV3		Groups
22	Task 21	Music song from file			•	25 mins	EV3		Groups
23	Task 22	Music song from file			•	20 mins	EV3		Groups

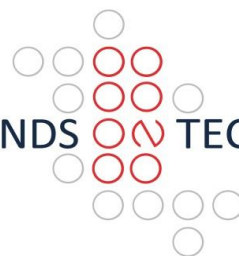
± 340 mins



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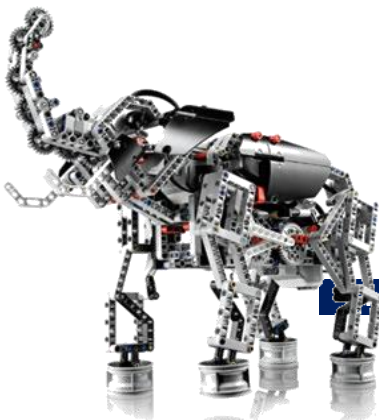


# EV3 WORKBOOK 2

## SECTION 3 – DATA WIRES

Pg	Task #	Main Areas	E	M	D	± Times	Need / Model / Sensors	Mat	Group
24	<i>Intro to Data Wires</i>					15 mins			
25	<i>QTask 17</i>	Data Wires <i>data types</i>	•			10 mins	Software		
26	<i>QTask 18</i>	Data Wires <i>inputs &amp; outputs</i>	•			10 mins	Software		
27	<i>QTask 19</i>	Data Wires <i>inputs &amp; outputs</i>	•			10 mins	Software		
28	<i>QTask 20</i>	Data Wires <i>inputs &amp; outputs</i>	•			10 mins	Software		
29	<i>QTask 21</i>	Data Wires <i>inputs &amp; outputs</i>	•			15 mins	Motor		
30	<i>QTask 21</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>light</i>		
30	<i>QTask 22</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>light</i>		
30	<i>QTask 23</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>light</i>		
30	<i>QTask 24</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>light</i>		
31	<i>QTask 25</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>colour</i>		
32	<i>QTask 26</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>touch</i>		
32	<i>QTask 27</i>	Data Wires <i>input tasks</i>	•			15 mins	M Motor <i>touch</i>		
33	<i>QTask 28</i>	Data Wires <i>data operations</i>	•			15 mins	EV3 <i>touch</i>		
34	<i>QTask 29</i>	Data Wires <i>sound files</i>		•		25 mins	EV3 <i>touch</i>		
35	<i>QTask 30</i>	Data Wires <i>random numbers</i>		•		20 mins	EV3 <i>touch</i>		
36	<i>QTask 30</i>	Data Wires <i>random numbers</i>		•		20 mins	EV3 <i>touch</i>		
37	<i>QTask 31</i>	Data Wires <i>Flash Game</i>		•		30 mins	EV3 <i>touch</i>		Par / Grp
37	<i>QTask 31</i>	Data Wires <i>Flash Game</i>		•		30 mins	EV3 <i>touch</i>		Par / Grp
38	<i>Task 23</i>	Data Wires <i>control output with inp</i>	•			10 mins	Motor <i>ultrasonic</i>		
38	<i>Task 24</i>	Data Wires <i>control output with inp</i>	•			10 mins	Motor <i>ultrasonic</i>		
38	<i>Task 25</i>	Data Wires <i>control output with inp</i>	•			10 mins	Motor <i>ultrasonic</i>		

± 345 mins



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## SECTION 4 – VARIABLES & CONSTANTS

Pg	Task #	Main Areas		E	M	D	± Times	Need / Model / Sensors		Mat	Group
39	<i>Intro to Data Storage - Constant</i>						15 mins				
40	<i>Intro to Data Storage - Variable</i>						15 mins				
41	QTask 32	Constants	<i>storing data</i>		•		15 mins	Driving Base			
41	QTask 33	Constants	<i>storing data</i>		•		15 mins	Driving Base			
41	QTask 34	Constants	<i>storing data</i>		•		15 mins	Driving Base			
42	QTask 35	Constants	<i>outside loops</i>		•		15 mins	Software			
42	QTask 36	Constants	<i>outside loops</i>		•		15 mins	Software			
43	Task 26	Variables	<i>using data wires</i>	•			10 mins	Motor			
43	Task 27	Variables	<i>using data wires</i>	•			15 mins	Motor	touch		
43	Task 28	Variables	<i>using data wires</i>	•			15 mins	EV3	colour		
43	Task 29	Variables	<i>using data wires</i>	•			15 mins	EV3	colour		
44	Task 30	Variables	<i>using data wires</i>	•			20 mins	2 x Motors			
44	Task 31	Variables	<i>using data wires</i>		•		25 mins	EV3	colour		
45	Task 32	Variables	<i>using data wires</i>		•		15 mins	EV3	various		Partner
45	Task 33	Variables	<i>using data wires</i>		•		10 mins	EV3	various		Partner
45	Task 33	Variables	<i>using data wires</i>		•		10 mins	EV3	various		Partner
45	Task 33	Variables	<i>using data wires</i>		•		10 mins	EV3	various		Partner
46	Task 34	Variables	<i>using data wires</i>		•		20 mins	EV3	gyro		
46	Task 34	Variables	<i>using data wires</i>		•		15 mins	EV3	gyro		
47	Task 35	Variables	<i>using data wires</i>			•	25 mins	Driving Base	various		Partner
47	Task 36	Variables	<i>using data wires</i>			•	20 mins	Driving Base	various		Partner
48	Task 37	Variables	<i>using data wires</i>		•		15 mins	EV3 (+own)	colour		
48	Task 38	Variables	<i>using data wires</i>		•		15 mins	Driving Base	touch		
48	Task 39	Variables	<i>using data wires</i>		•		15 mins	EV3	touch		Partner
49	Task 40	Variables	<i>using data wires</i>		•		20 mins	Driving Base	touch	•	Partner
49	Task 41	Variables	<i>using data wires</i>			•	25 mins	Driving Base	various	•	Partner
50	Task 42	Variables	<i>logic ( and / or )</i>			•	20 mins	Driving Base	various	•	Partner
50	Task 43	Variables	<i>logic ( and / or )</i>			•	15 mins	Driving Base	various	•	Partner

± 455 mins

<b>Pages 51 - 56</b>	<i>Tasks 44 - 70</i>
Task & Project Extension Ideas	



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