

Keeping a Logbook

- Use this logbook to record *everything* you do on a project:
 - Annotated sketches & doodles
 - Customer needs & requirements
 - Class notes
 - Project objectives
 - Meeting notes
 - Action Items
 - Half-baked Ideas
 - Maths calculations
 - Block diagrams
 - System diagrams
 - Sketched circuit schematics
 - Stripboard layouts (the dots are printed at the right spacing)
 - Code snippets
 - Design alternatives
 - Research findings
 - Sources of ideas (including URLs of websites)
 - Results of experiments
 - Evaluation of data/results
 - Design reviews
 - Decision criteria
 - Design process
 - Rationale for decisions
 - Project reflections
 - Physically cut-and-pasted photos, scans etc.
- Write in the logbook as you go - do not write things elsewhere with the intention of writing it up in the logbook later.
- No loose bits of paper – they'll fall out and you'll lose them.
- Record the date on each page. Start each day on a new page.
- Use ink, not pencil. Do not erase. Delete an entry by neatly crossing it out.
- Do not remove pages.
- Do not leave pages blank, expecting to fill them later. If you realize you have left something out, just write it on the next available page.
- Use the page numbers in the top corner as references. E.g. "the load on the motor was calculated using equation 5 on page 57"
- Do not paste too many bits of paper into your logbook – it'll get unmanageably thick.
- Do not paste large sheets or multiple printed pages in your logbook. Save the information in a file, give it a sensible name and store it in a sensible location. Refer to the name and location in your logbook. E.g. "datasheet for this part is stored in /myDocuments/finalproject/datasheet/555.pdf"



Middlesex
University
London

Engineering Logbook

Name:MARLOW.....GHIRA.....

Student No.:MOD 539673.....

Module:PDF 2100.....

Project Title:MECHE.....

Dates:9/03/17.....

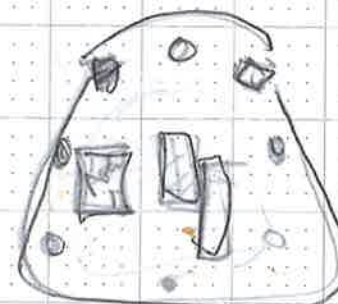
Quantity	Usual Symbol	Unit	Unit symbol
Voltage	V	Volt	V
Current	I	Amp	A
Charge	Q	Coulomb	C
Resistance	R	Ohm	Ω
Capacitance	C	Farad	F
Inductance	L	Henry	H
Reactance	X	Ohm	Ω
Impedance	Z	Ohm	Ω
Power	P	Watt	W
Energy	E	Joule	J
Time	t	Second	s
frequency	f	hertz	Hz

Milli (m)	Micro(μ)	Nano (n)	Pico (p)
0.000 000 001	0.000 001	0.001	1
0.000 000 01	0.000 01	0.01	10
0.000 000 1	0.000 1	0.1	100
0.000 001	0.001	1	1000
0.000 01	0.01	10	10 000
0.000 1	0.1	100	100 000
0.001	1	1000	1000 000
0.01	10	10 000	10 000 000
0.1	100	100 000	100 000 000
1	1 000	1 000 000	1 000 000 000

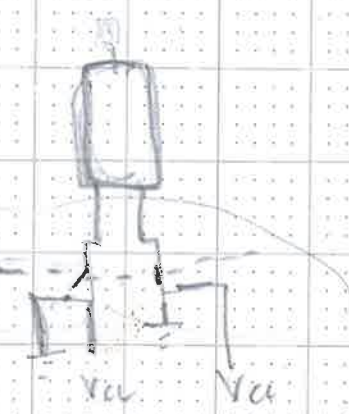
Prefix	Prefix Symbol	Value
Pico	p	0.000 000 000 001
Nano	n	0.000 000 001
Micro	μ	0.000 001
Milli	m	0.001
Centi	c	0.01
Deci	d	0.1
(none)	-	1
Deca	D	10
Hecto	h	100
Kilo	k	1 000
Mega	M	1 000 000
Giga	G	1 000 000 000
Tera	T	1 000 000 000 000

10/03/17

1



Relay &
change
direction

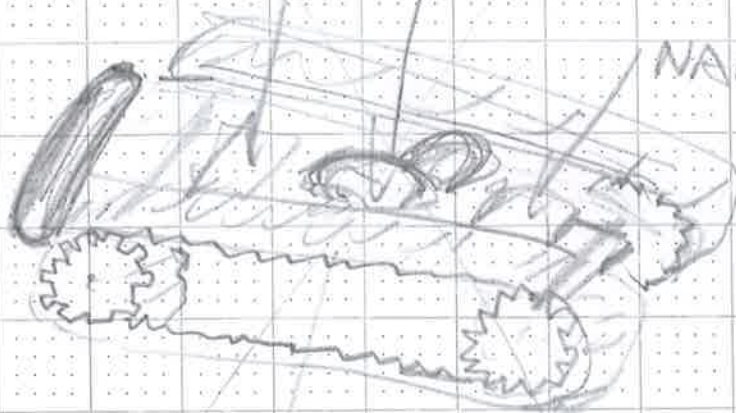


2

16/03/17

DRIVING
BATTERY WHEEL

NANO



3d printed

20/03/17

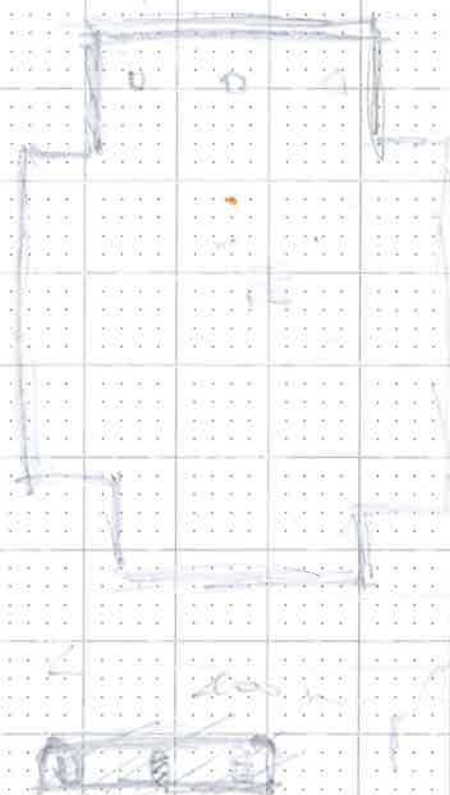
3

number of things on base

- arduino nano

- battery

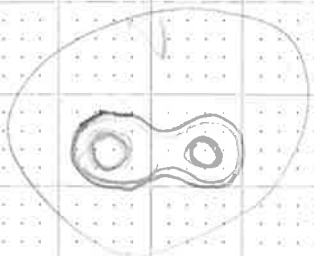
- motor switch



22/03/17

6

1. 2. 3. 4.

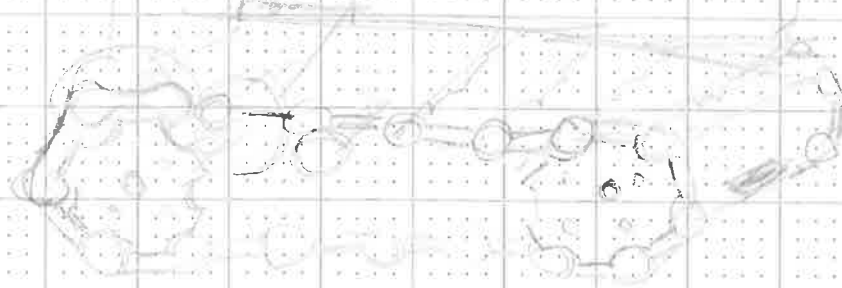


Using 300, 100

1. 2. 3. 4.

1. 2. 3. 4.

1. 2. 3. 4.



One with a cell

22/03/17

7

1. 2. 3. 4.

1. 2. 3. 4.



1. 2. 3. 4.

29/03 LF

11

24/03/17

12

700 lbs
100 lbs

plus 100 lbs for each
100 lbs per 100 lbs

29/03/17

13