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: Jim Castro

Student No.: M00554112

Module:

Project Title: Plastic Cup - Handeling

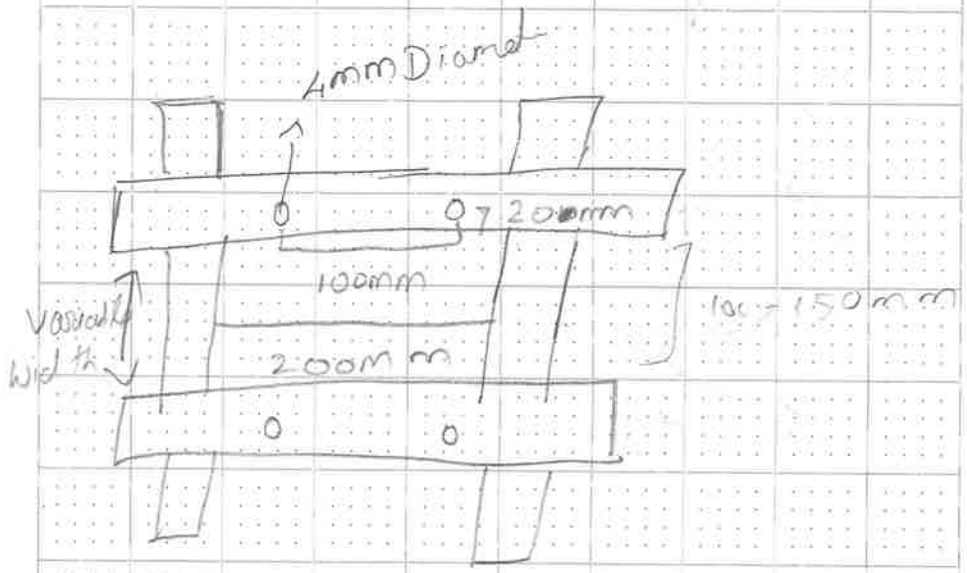
Dates:

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

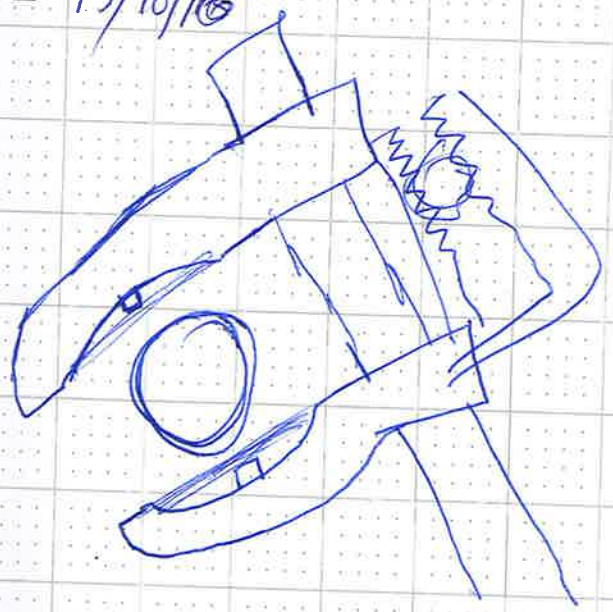
Milli (m)	Micro(μ)	Nano (n)	Pico (p)
0.000 000 001	0.000 001	0.001	1
0.000 000 01	0.000 01	0.01	10
0.000 000 1	0.000 1	0.1	100
0.000 001	0.001	1	1000
0.000 01	0.01	10	10 000
0.000 1	0.1	100	100 000
0.001	1	1000	1000 000
0.01	10	10 000	10 000 000
0.1	100	100 000	100 000 000
1	1 000	1 000 000	1 000 000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

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
Hector	h	100
Kilo	k	1 000
Mega	M	1 000 000
Giga	G	1 000 000 000
Tera	T	1 000 000 000 000

14/10/2016

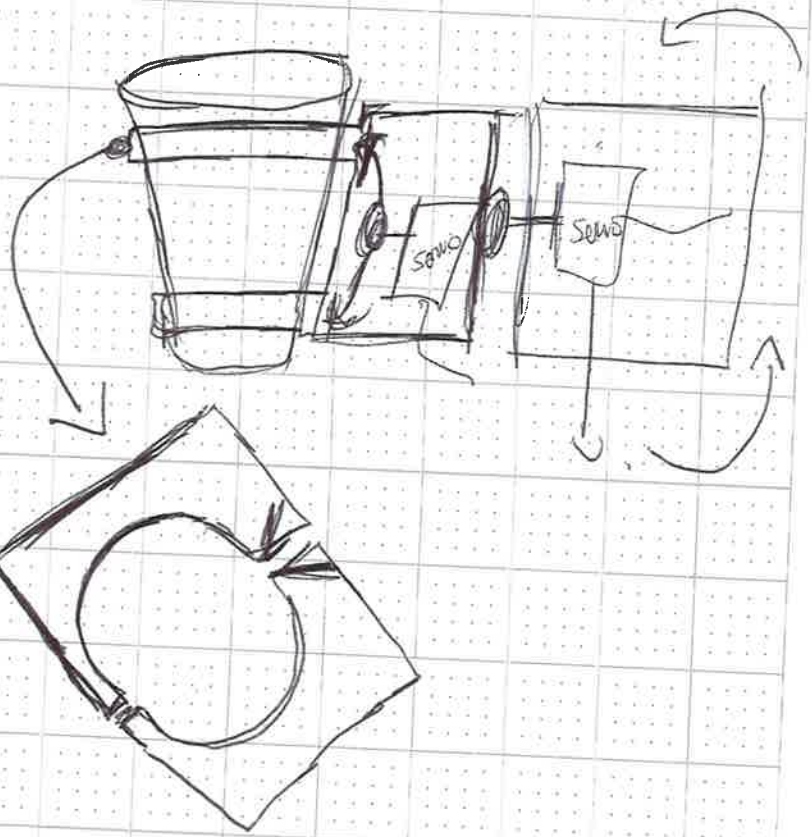


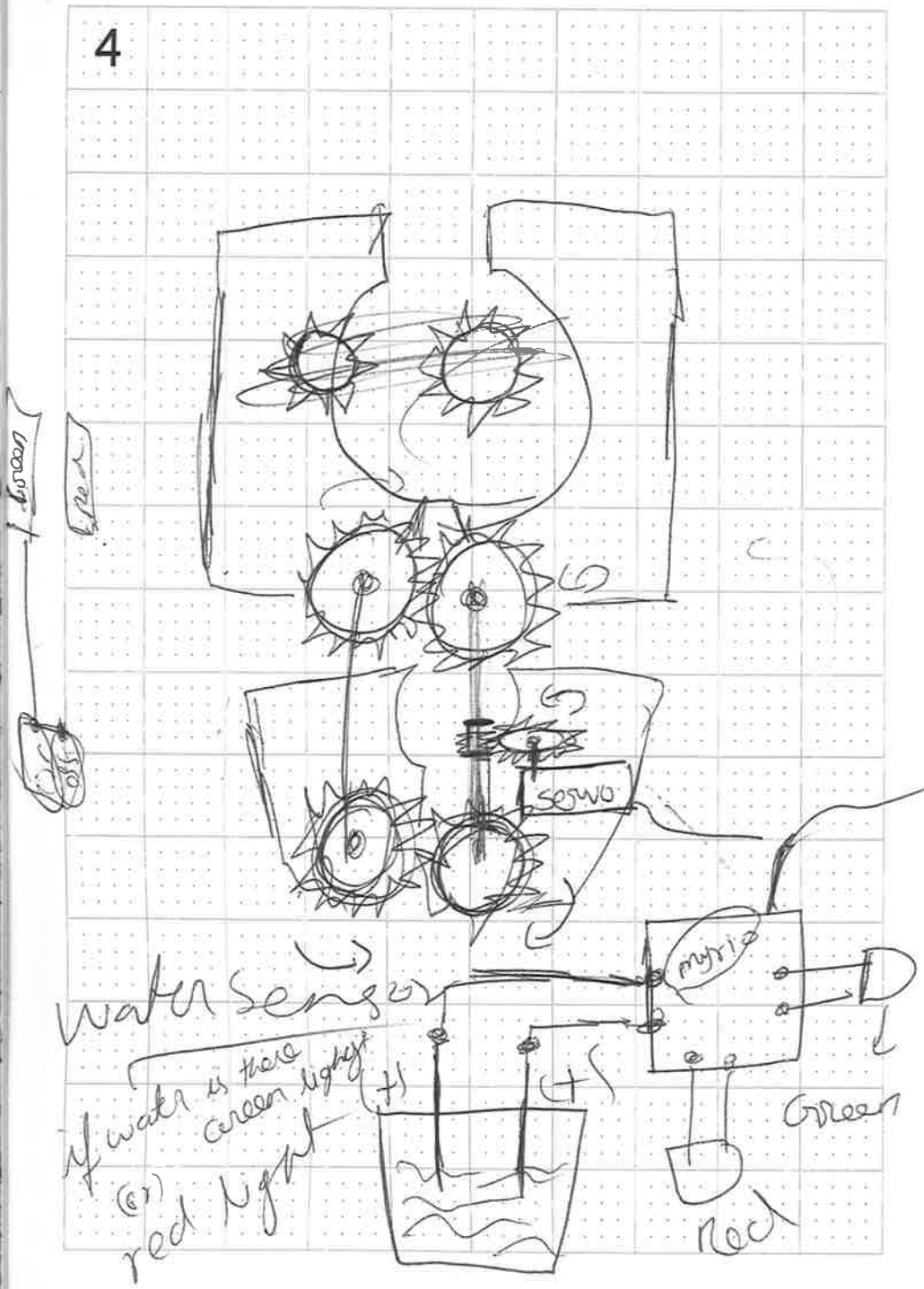
2 15/10/16

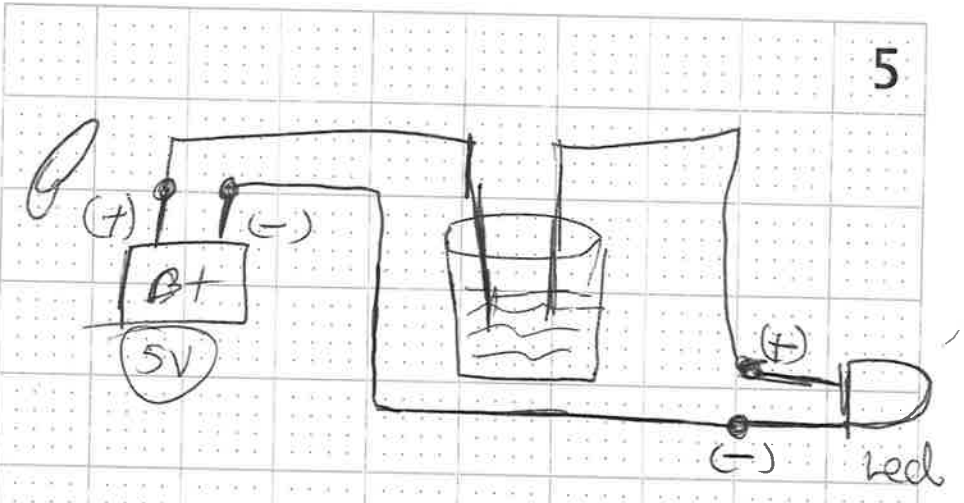


21/10/2016 3

Plastic cup - handeling

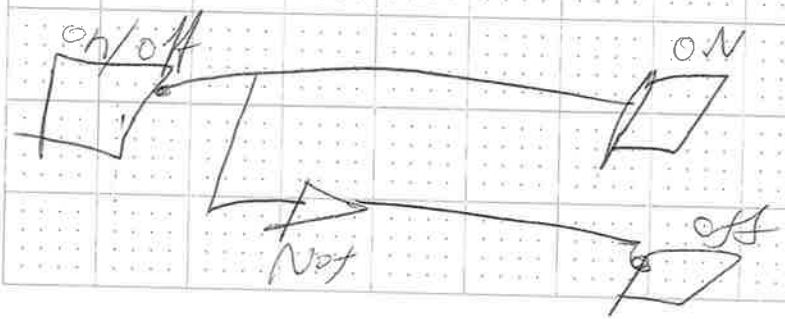


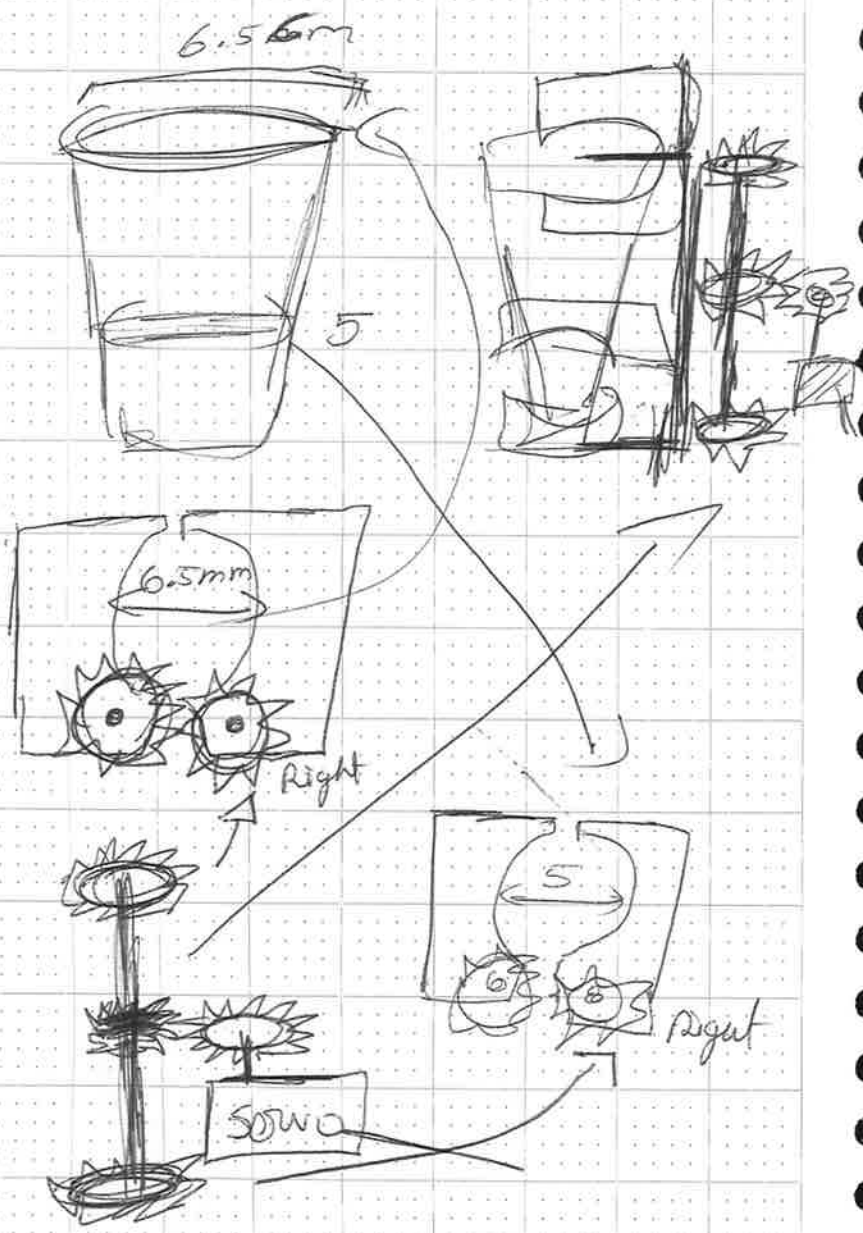




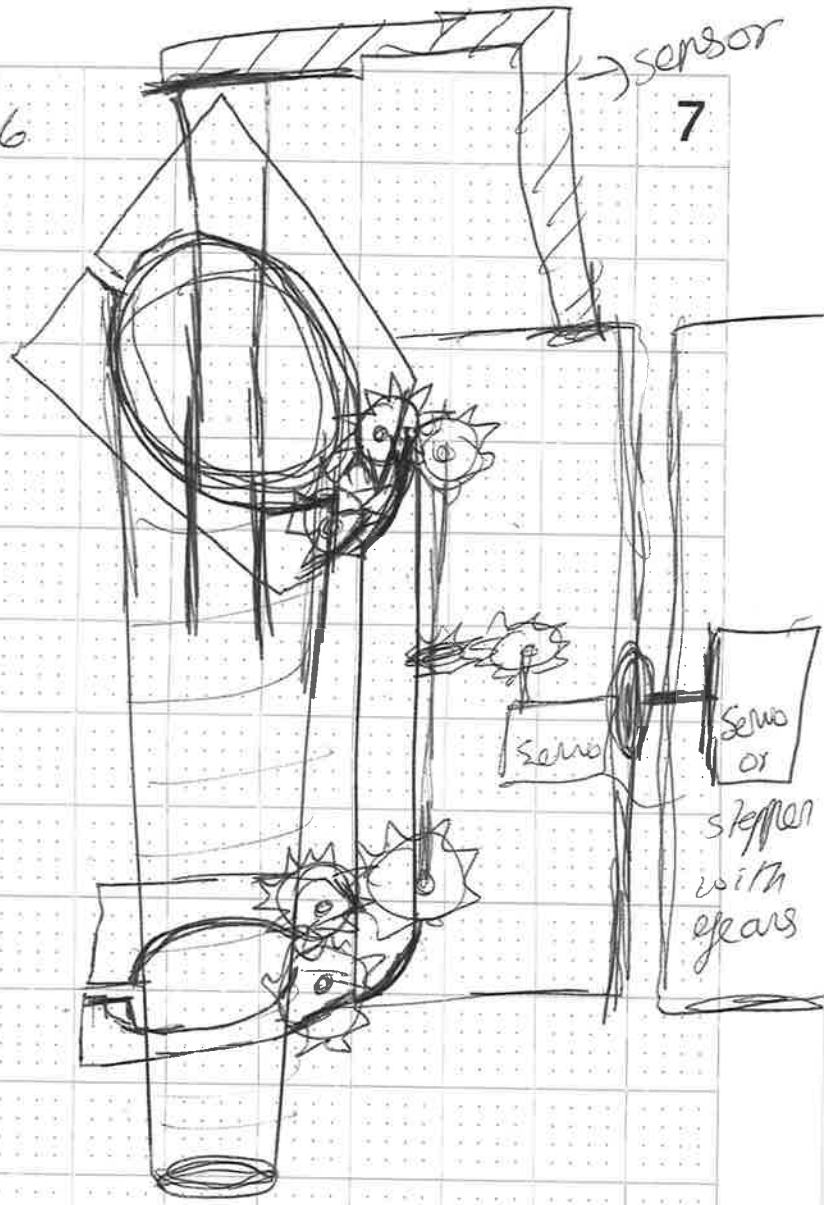
Labview myrio

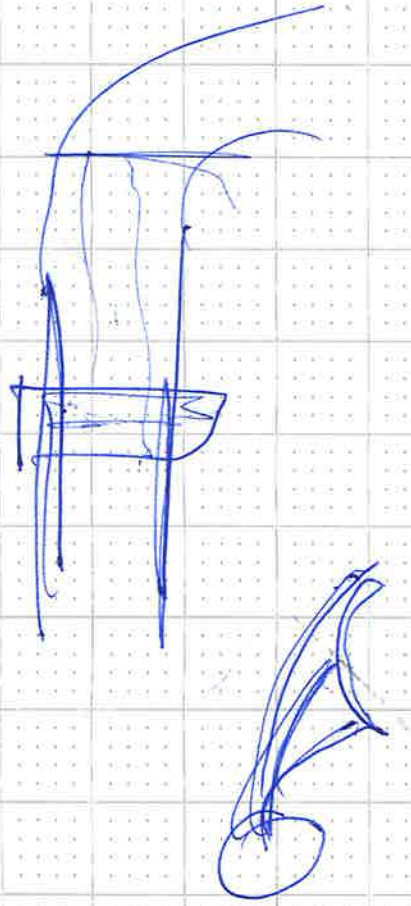
when Green is on
turn red off when Green
is off turn green on



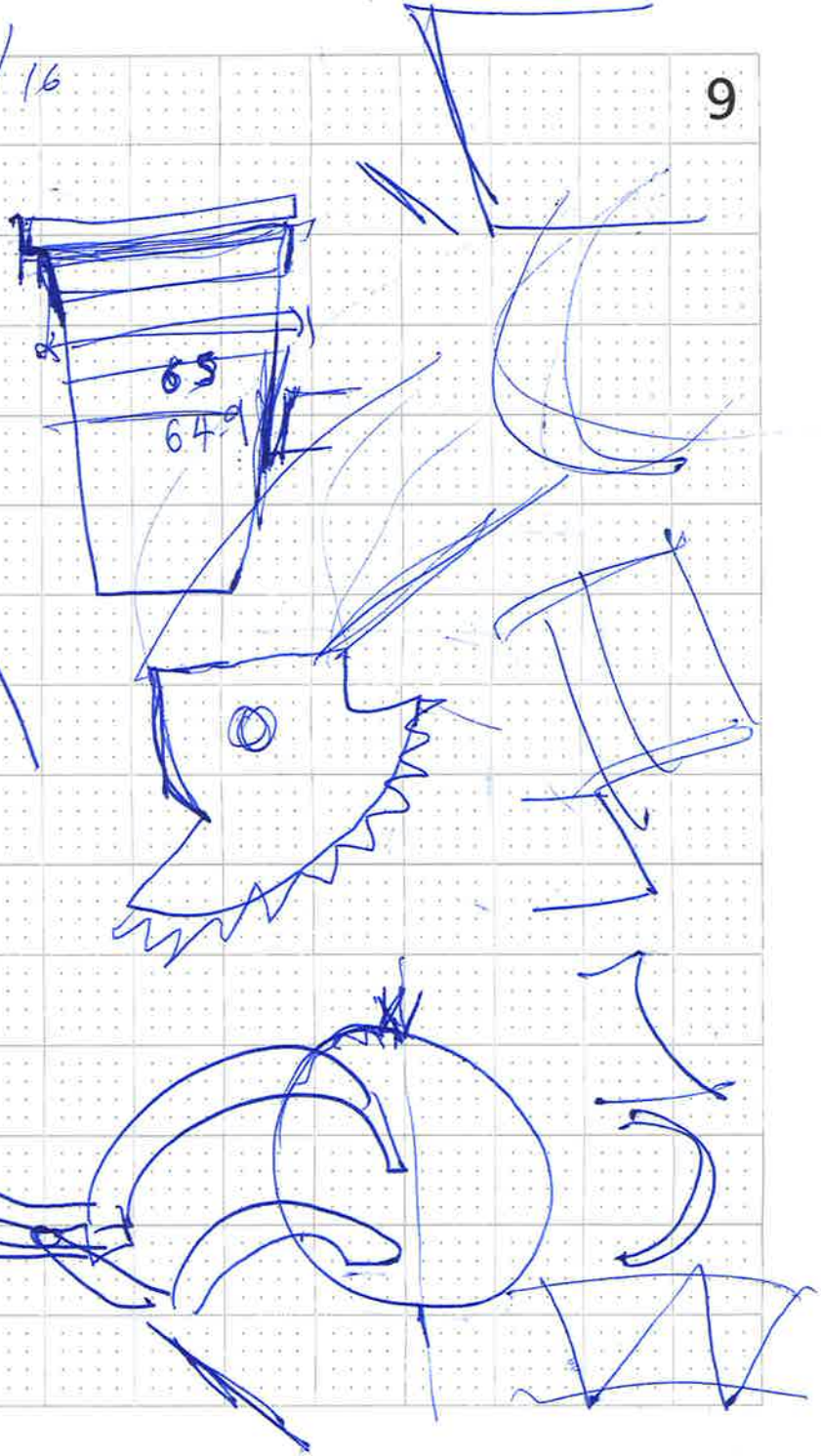

6.56m
5
6.5mm
Right
5
Right
Servo

28/10/16


sensor
Servo
Servo or stepper with gears

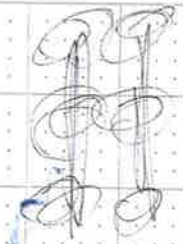


5/11/16



(1)
120
(180)

cup measurement



64 mm

58 mm

60

water level

51 mm

122 mm

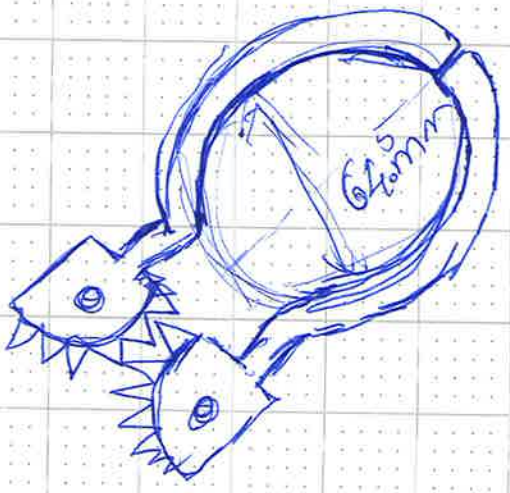
power

myRio

VRef

D-Type cable

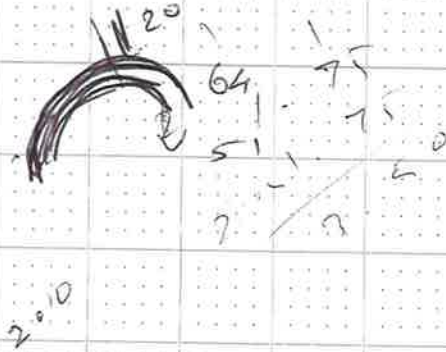
Cable



60 , 120

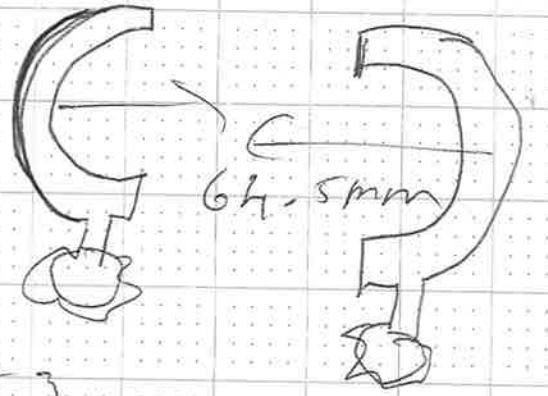
180 300

300



part 1

part 2



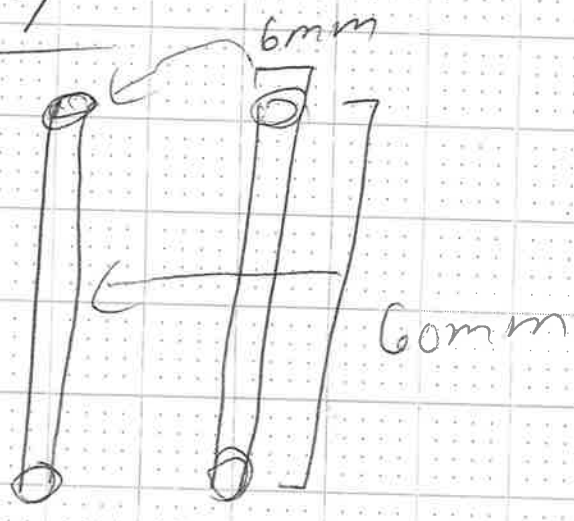
part 3

part 4

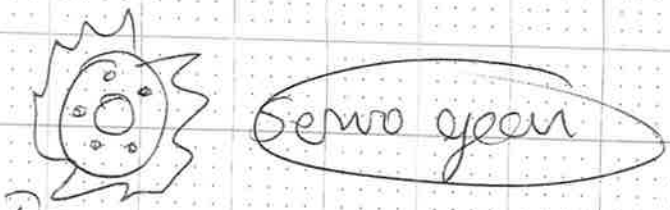
part 6

part 5

part 7

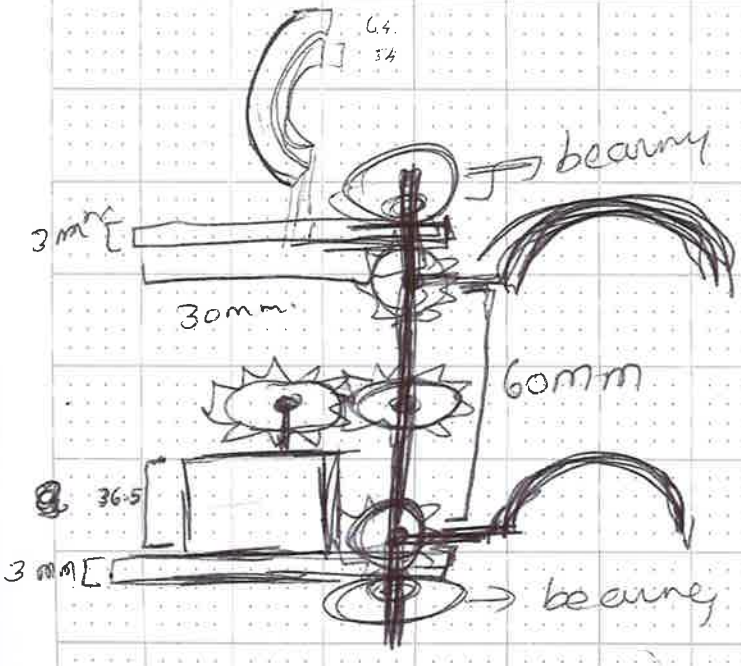


part 8



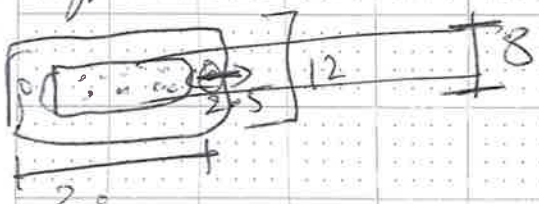
gear module : 1

inner diameter -> 3

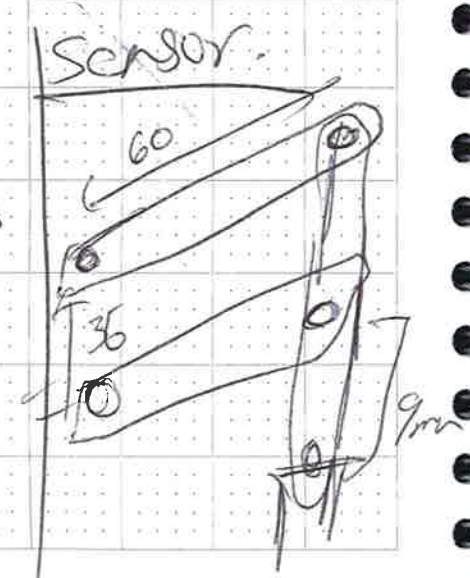


Extend corridor

Type - D



Sensor



27/04/2017

Cabricw program:

default

① → open Gripper → default.

→ close Gripper

↳ sensor dip

↳ detect water

↳ water is

↳ NO water

10 seconds

↓

open Gripper (becomes default)

②

Sensor up

↳ wait 20 seconds

↳ Twist holder (slowly)

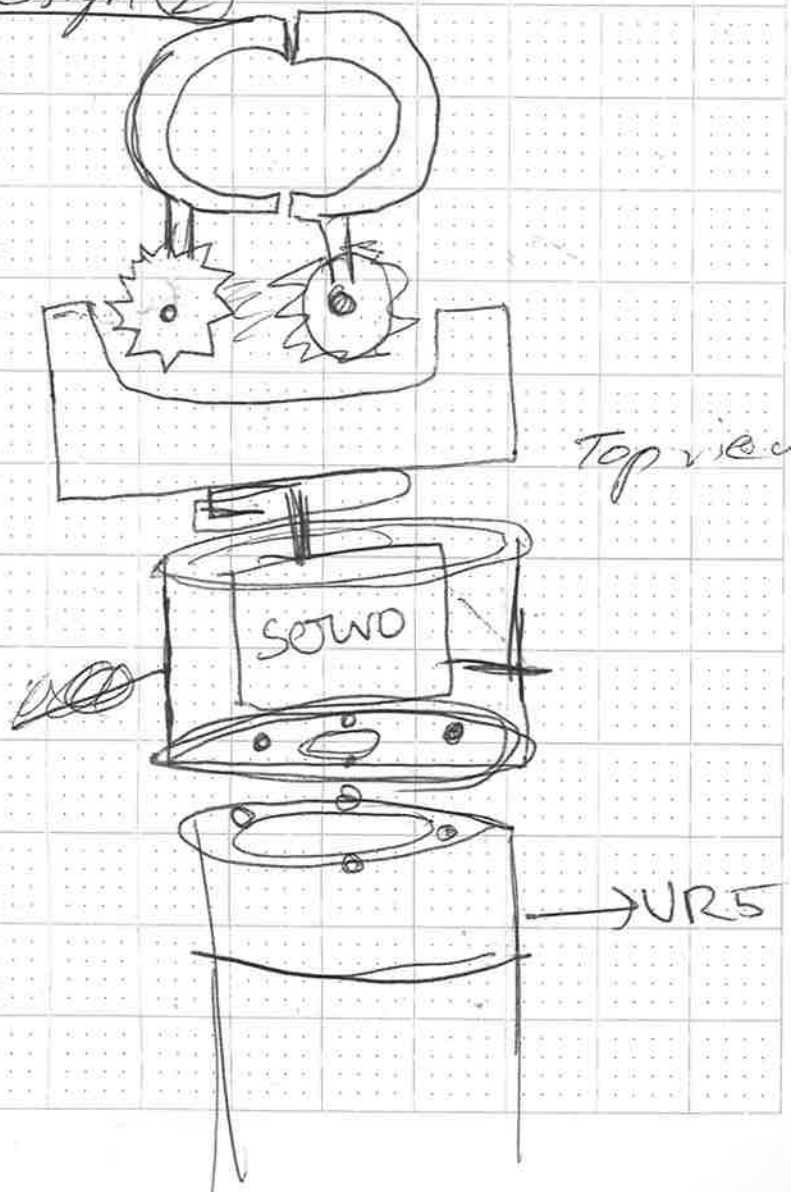
↳ untwist holder

↳ wait for 2ose conds

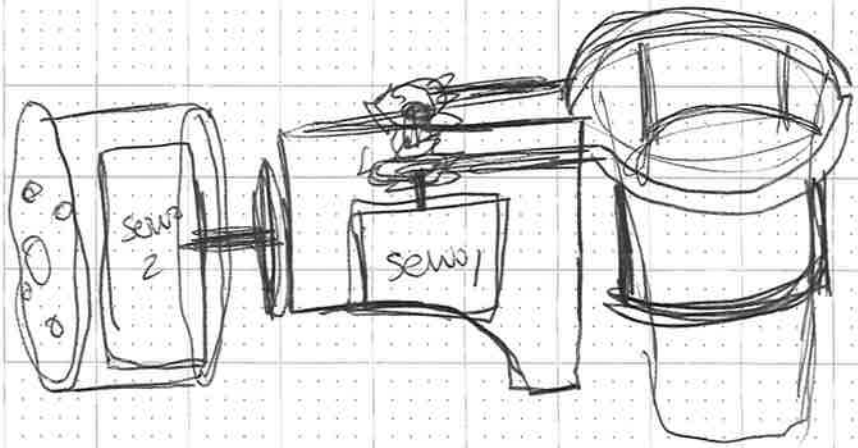
↳ open Gripper ↳ default.

30/01

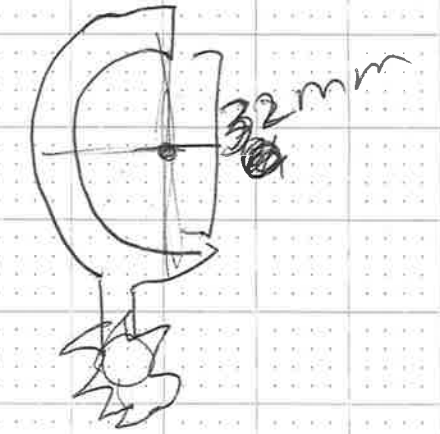
Design ②



Side view



Measurement:



- water sensore (probe)