CAPSTONE

POWER ON

delay, send data to LCD (welcome!)

delay

SCREEN DISPLAY PROMPT

1. light roast
2. dark roast

SELECT W/ POT

↓

SCREEN DISPLAY

1. 1 cup
2. 2 cups

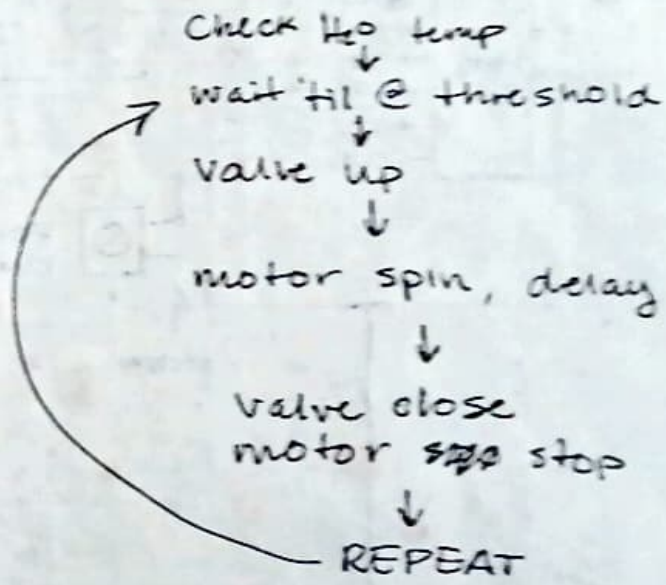
SELECT

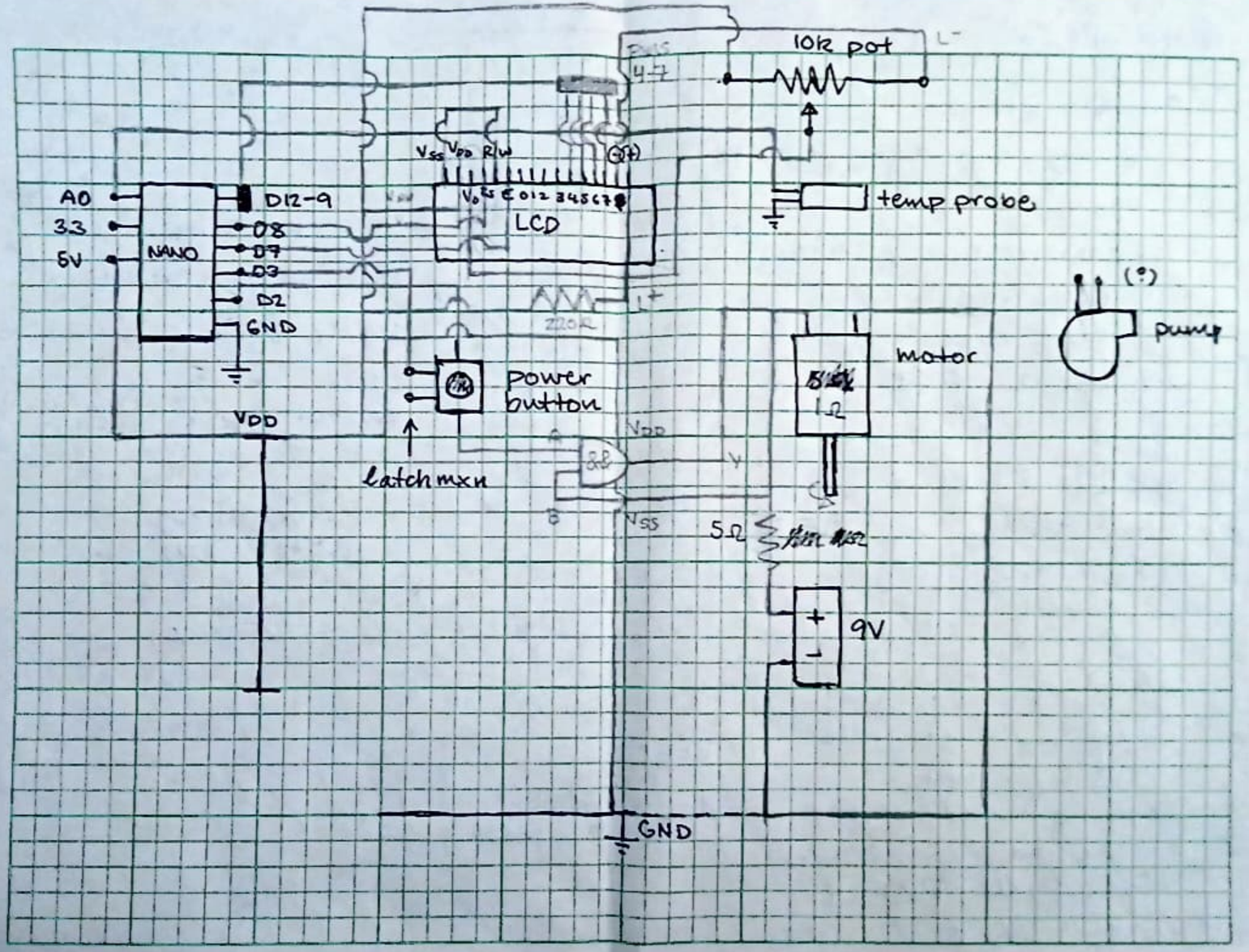
↓

Display

add ___ amt grds
and ___ amt
boiling water (up to a line in H_2O comp.)
select BREW
when done

SELECT → → BREW PROCESS




10kΩ pot
temp probe
LCD
NANO
A0
3.3
5V
D12-9
D8
D7
D3
D2
GND
VDD
power button
latch mxn
motor
pump
5Ω
9V
GND

testing

- maybe use other pour over filters to compare
- how will it be controlled → arduino? time settings?
- compare graininess (grounds), acidity
- test components in parts, not all at once
- design review b4 ordering parts
- come up w/ tests first

DIY-Presso

Espresso Machine Group: → Drip Coffee Machine
Pour over?
French Press?

Design Review To-do:

- automate pour over
- movement of nozzle to dispense water
- portion out grounds by weight?

Cold Brew?
→ tower @ Coffee exchange

Main Goal:
Consumer Product

~~[illegible]~~

Drip French

Vaccuum Coffee

Not espresso

- drip, pour over automation
- cold brew automation
- .

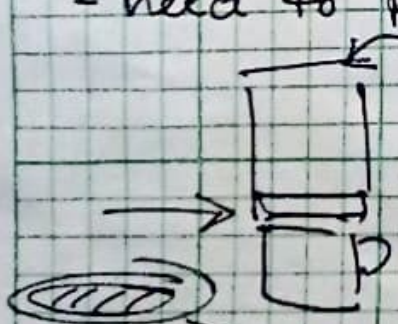
Cold brew
- normally bags & times
- cold brew automation
- move water rather than grounds/tea

Pour Over Automation

- water dispensed automatically
- load grounds OR have machine do grinding
- need to put in filter?

plunging filter

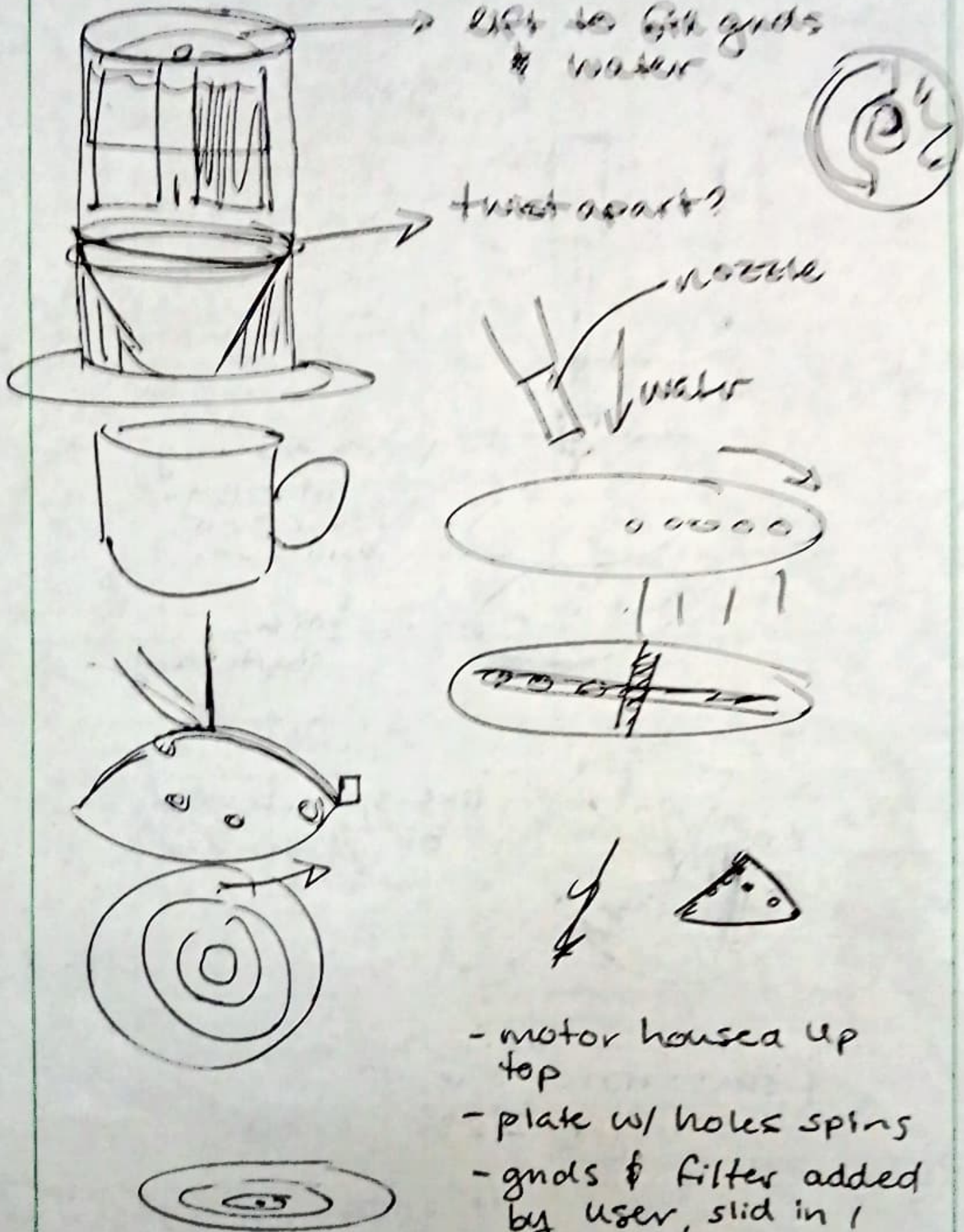
- final pushing step after 6 hrs



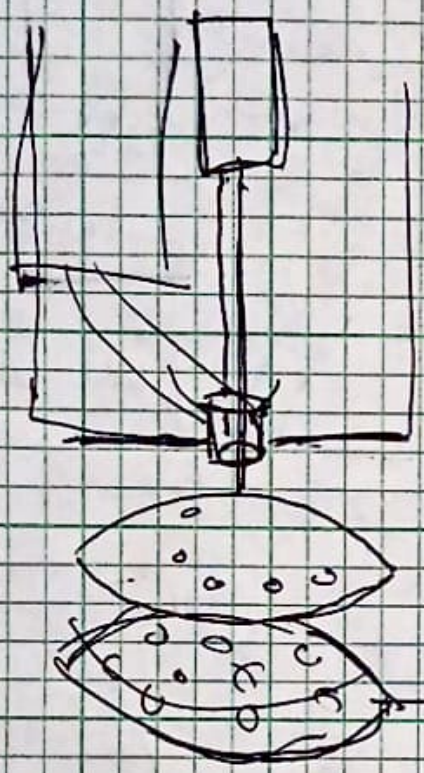
maybe use normal pour over filter

small &

clip filter btwn, slide in

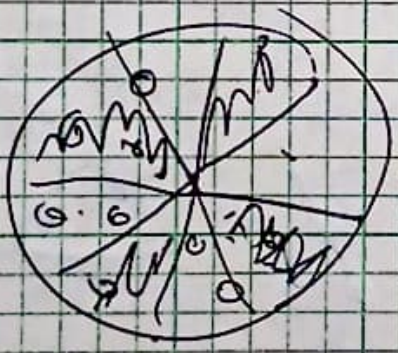


- motor housed up top
- plate w/ holes spins
- grnds & filter added by user, slid in / twist in
- sits on top of cup



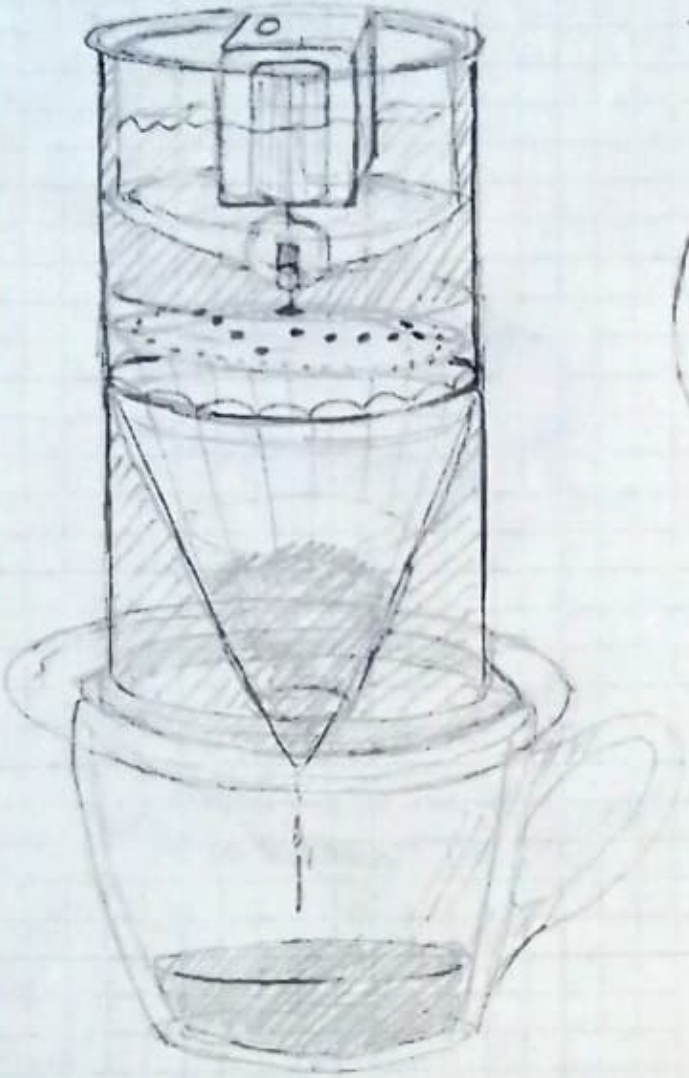
1 spinning
~~2 spinning~~
upside down bowls

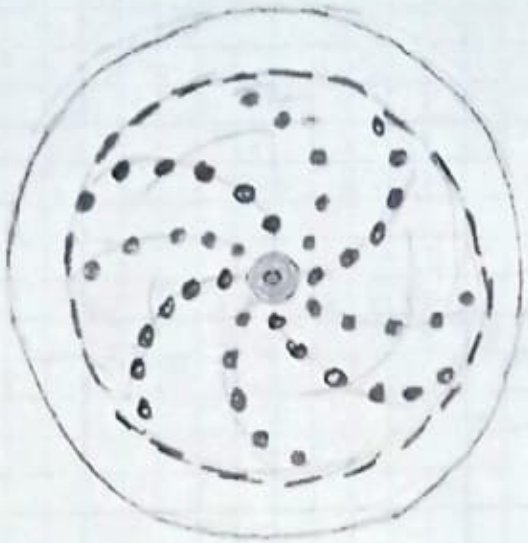
bottom stationary

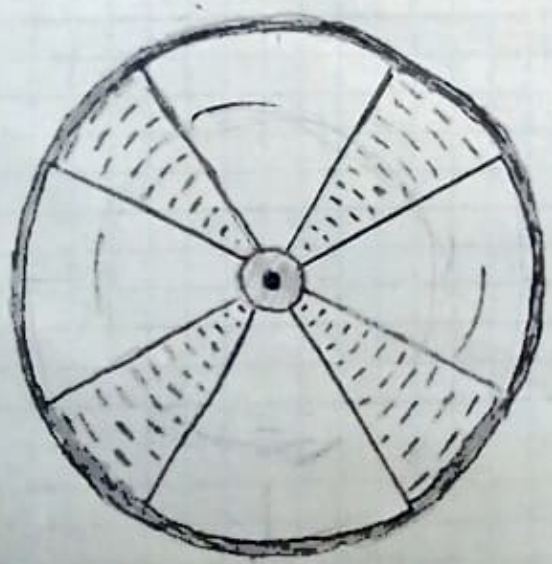


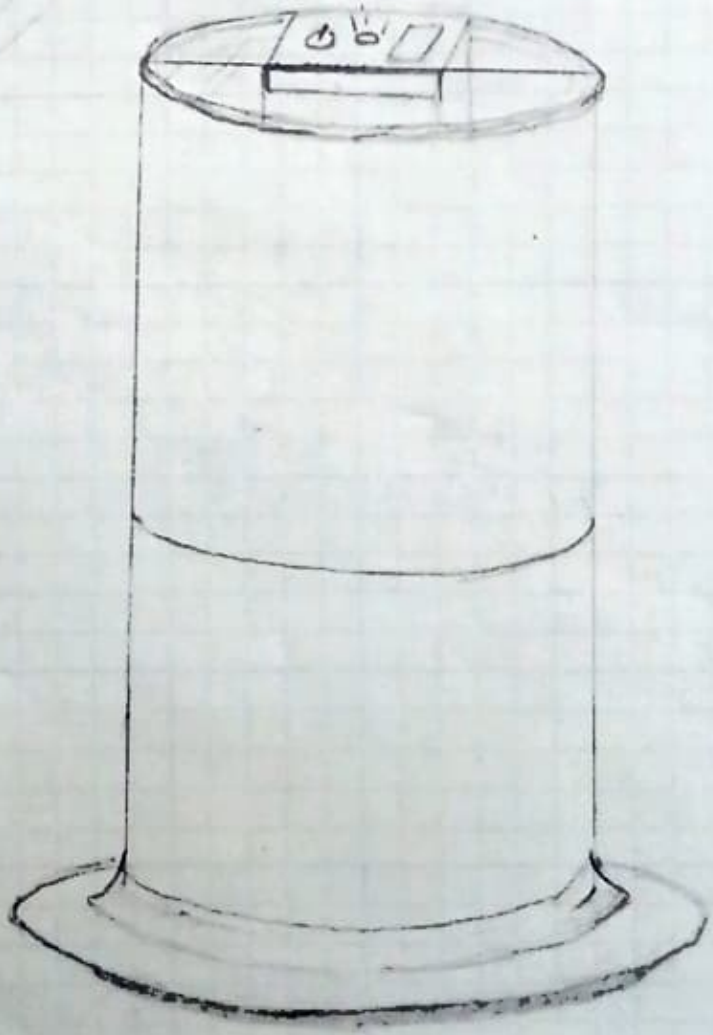
like sprinkle lid or glitter lid

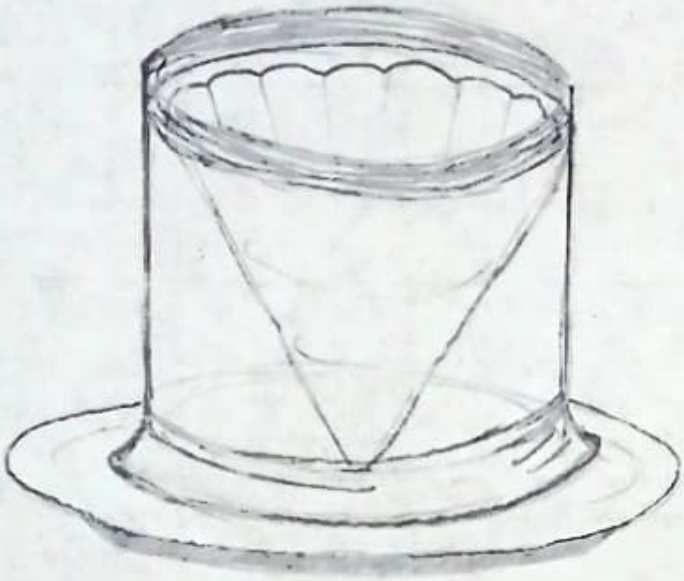
presentation due midnight 2/23

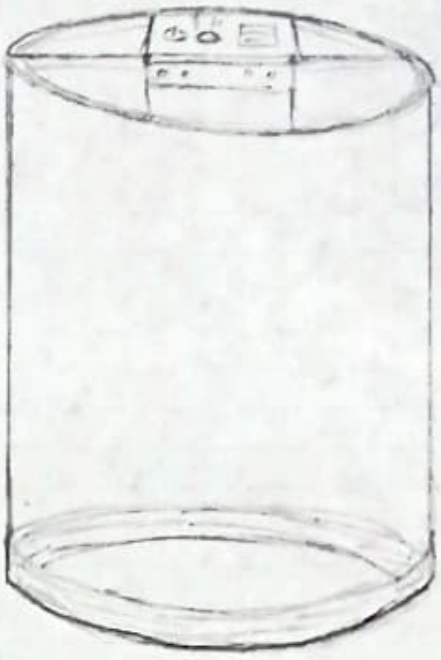


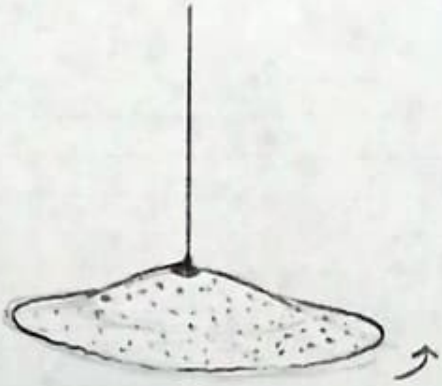




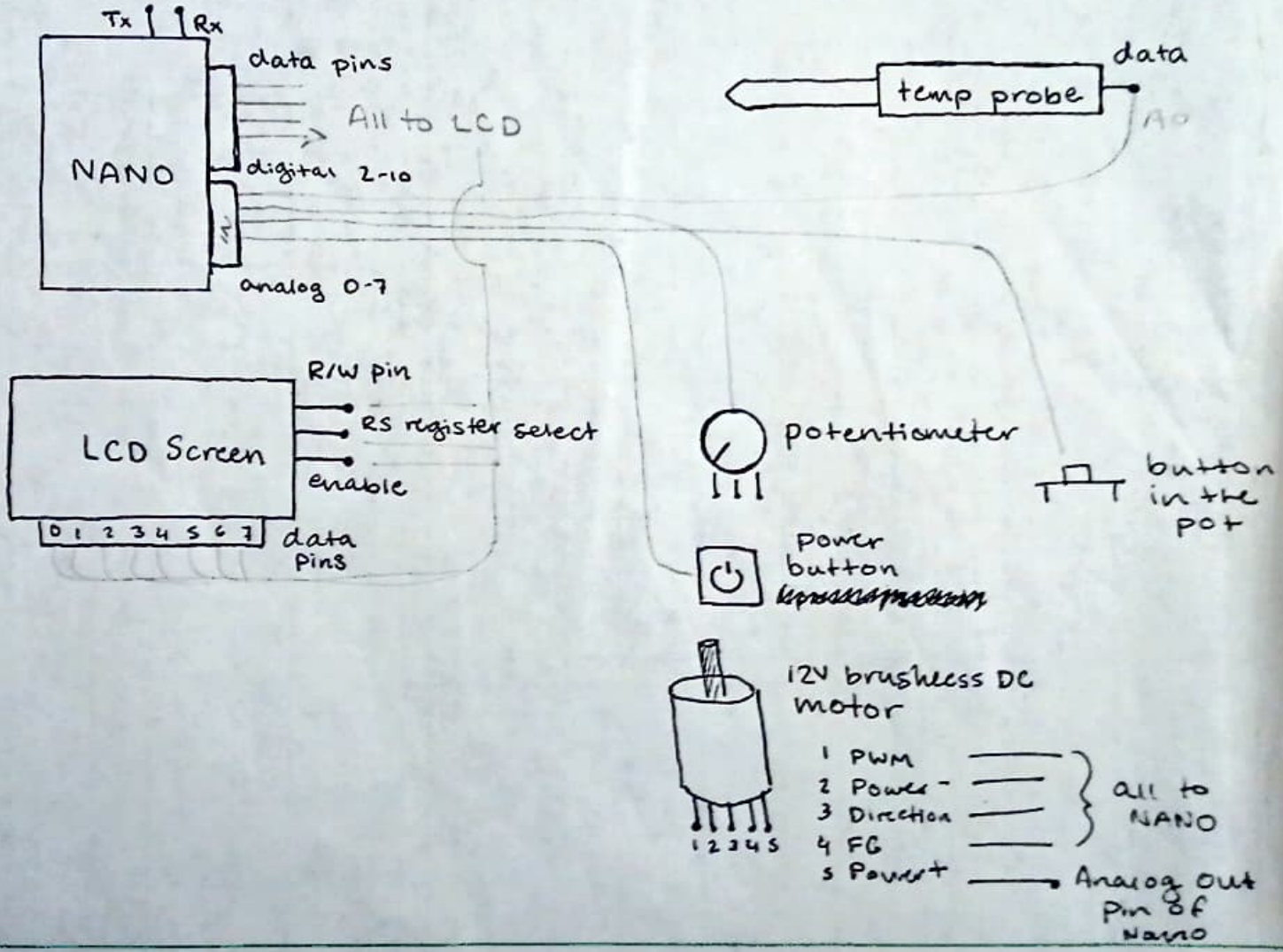






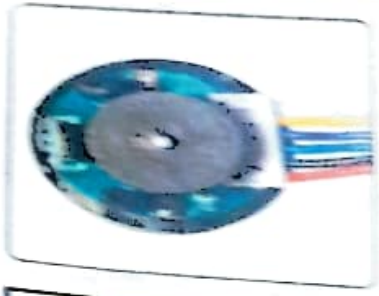


CAPSTONE


Tx
Rx
data pins
All to LCD
NANO
digital 2-10
analog 0-7
temp probe
data
A0
R/W pin
LCD Screen
RS register select
enable
0 1 2 3 4 5 6 7
data pins
potentiometer
button in the pot
power button
12V brushless DC motor
1 PWM
2 Power -
3 Direction
4 FG
5 Power+
1 2 3 4 5
all to NANO
Analog out Pin of Nano

TSINY

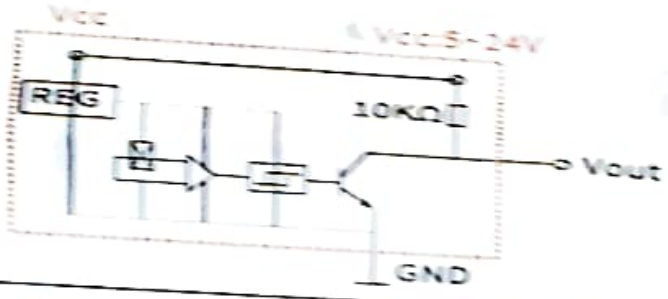
双向霍尔作用编码器
Bidirectional Hall action encoder



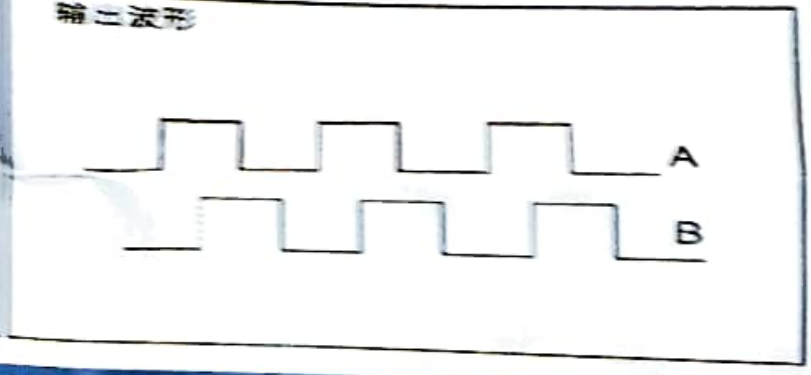
TSINY-8370系列是两通道增量式磁编码器，具有高性能，低成本，响应速度快，传输距离远等特性。每个磁编码器包含一个磁栅和一个磁敏检测电路，输出两个通道正交相位差90°的方波。

TSINY-8370 series is a dual channel Holzer effect encoder, with high performance, low cost, fast response, long transmission distance, etc. Each encoder include one magnetic grid and one magnetic sensitivity detection circuit, output two channels square wave with phase difference 90 degrees.

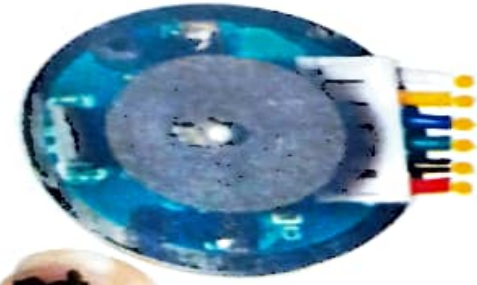
输出电波



输出波形

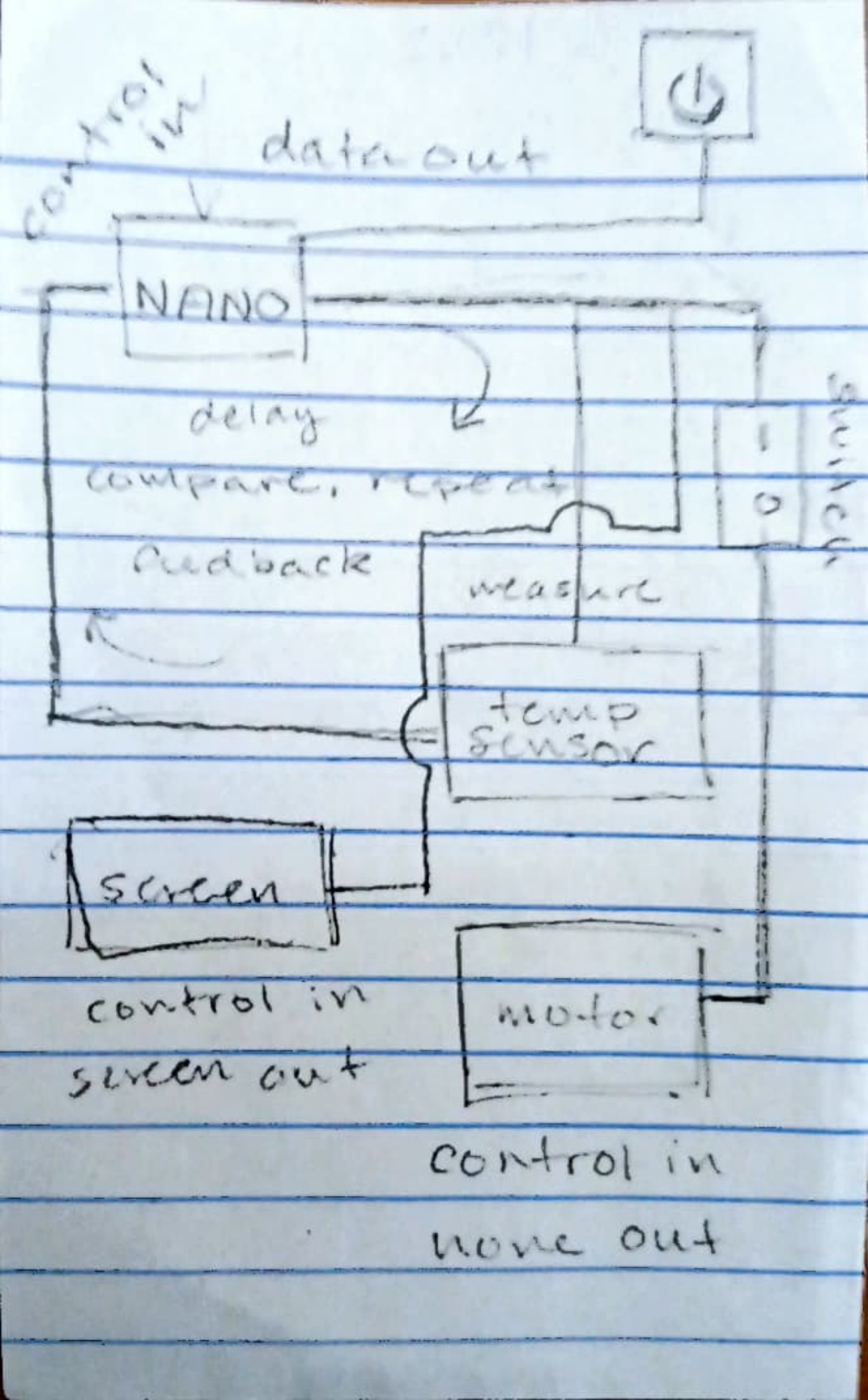


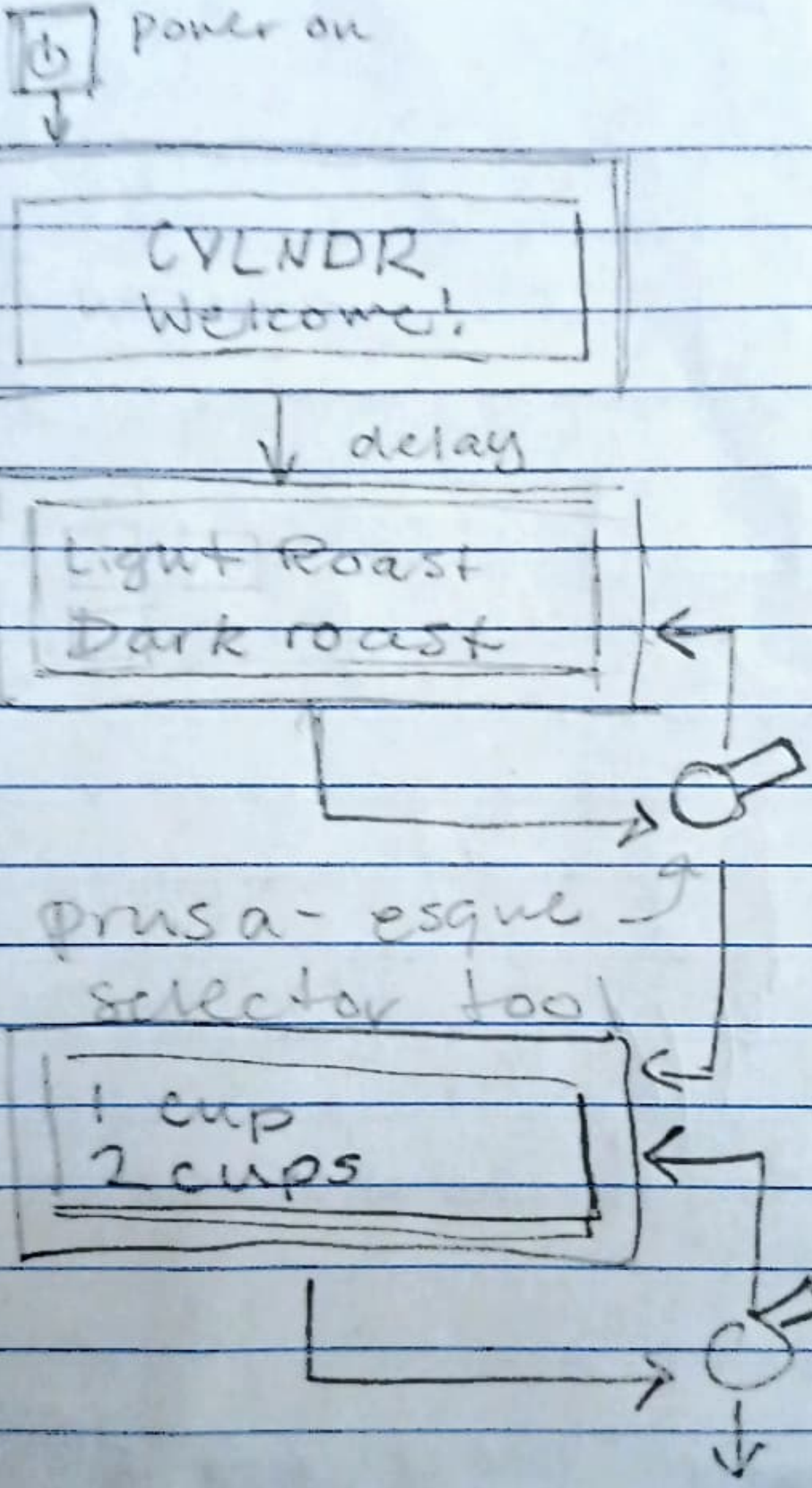
编码器接线说明
Encoder wiring instructions

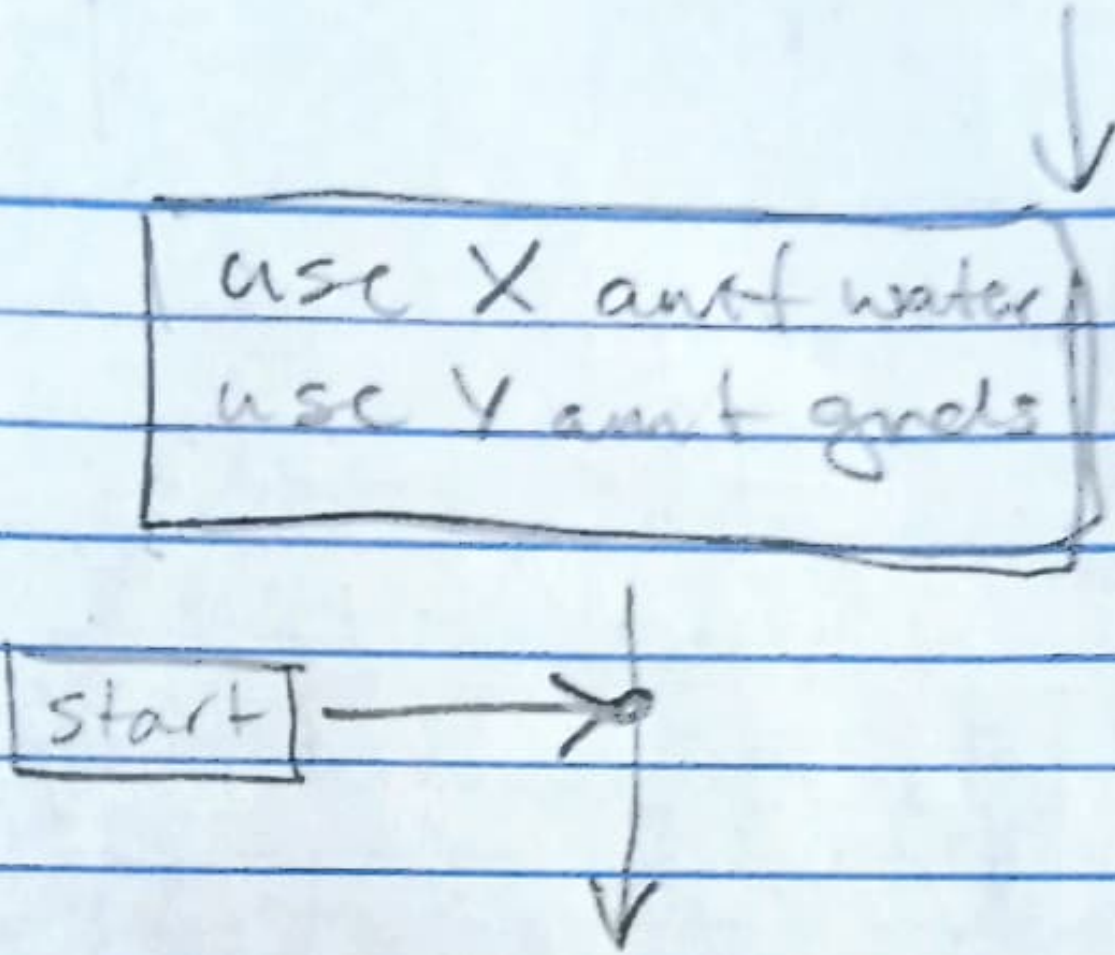


1. 白线：信号B输出点 (HALL SENSOR B Vout)
2. 黄线：信号A输出点 (HALL SENSOR A Vout)
3. 蓝线：传感器电源（Vcc） (HALL SENSOR Vcc)
4. 绿线：传感器地线（GND） (HALL SENSOR GND)
5. 黑线：电机电源 - (MOTOR -)
6. 红线：电机电源 + (MOTOR +)

http://www.tsinymotor.com

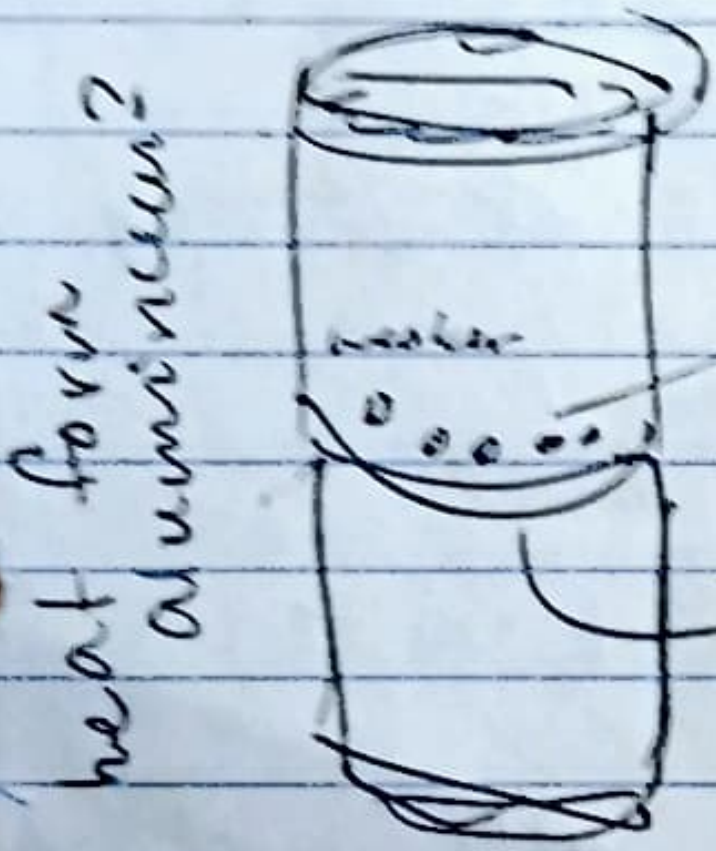
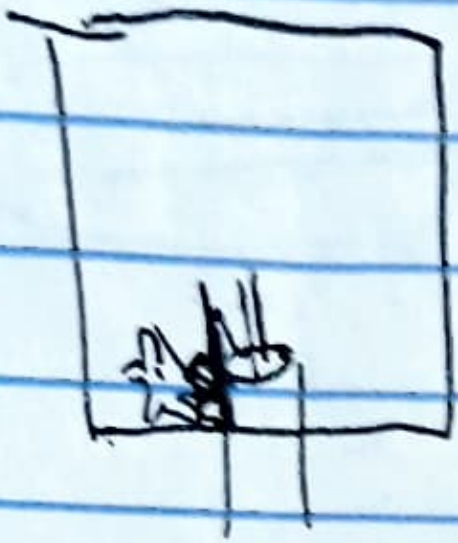
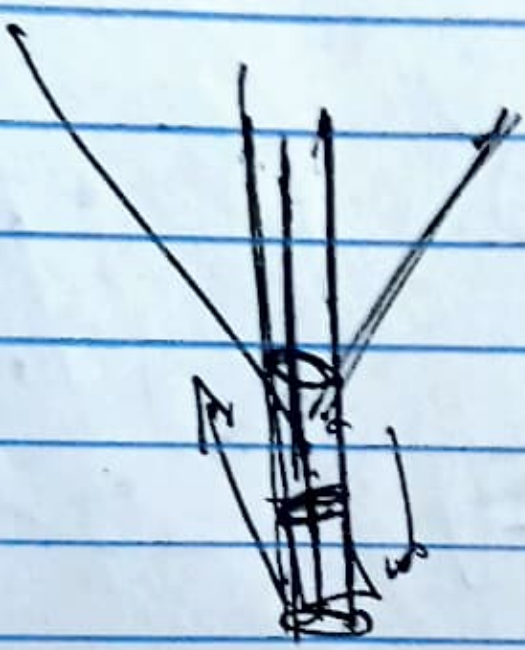
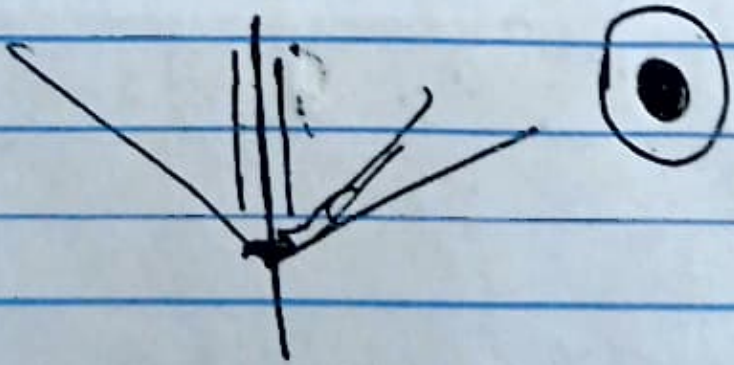
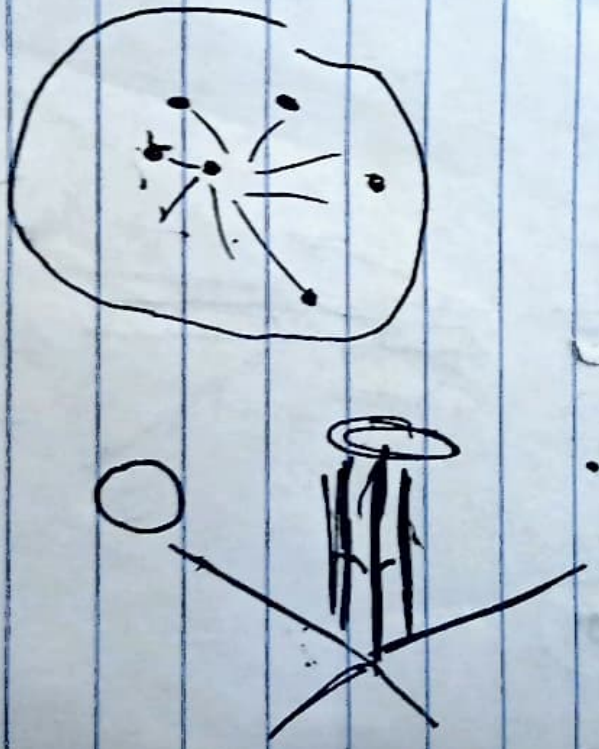

control in
data out
NANO
delay
compare, repeat
feedback
measure
temp sensor
screen
control in
screen out
motor
control in
motor out
1
0
switch


Power on
CYLNDR
Welcome!
delay
Light Roast
Dark roast
Prusa-esque
selector tool
1 cup
2 cups


use X amt water
use Y amt goods
start
start monitoring
temp & motoring

aluminium detailing.
anodize?

luxury good.



arduino nano LCD
acidity
user survey
what is design referring to? formwise