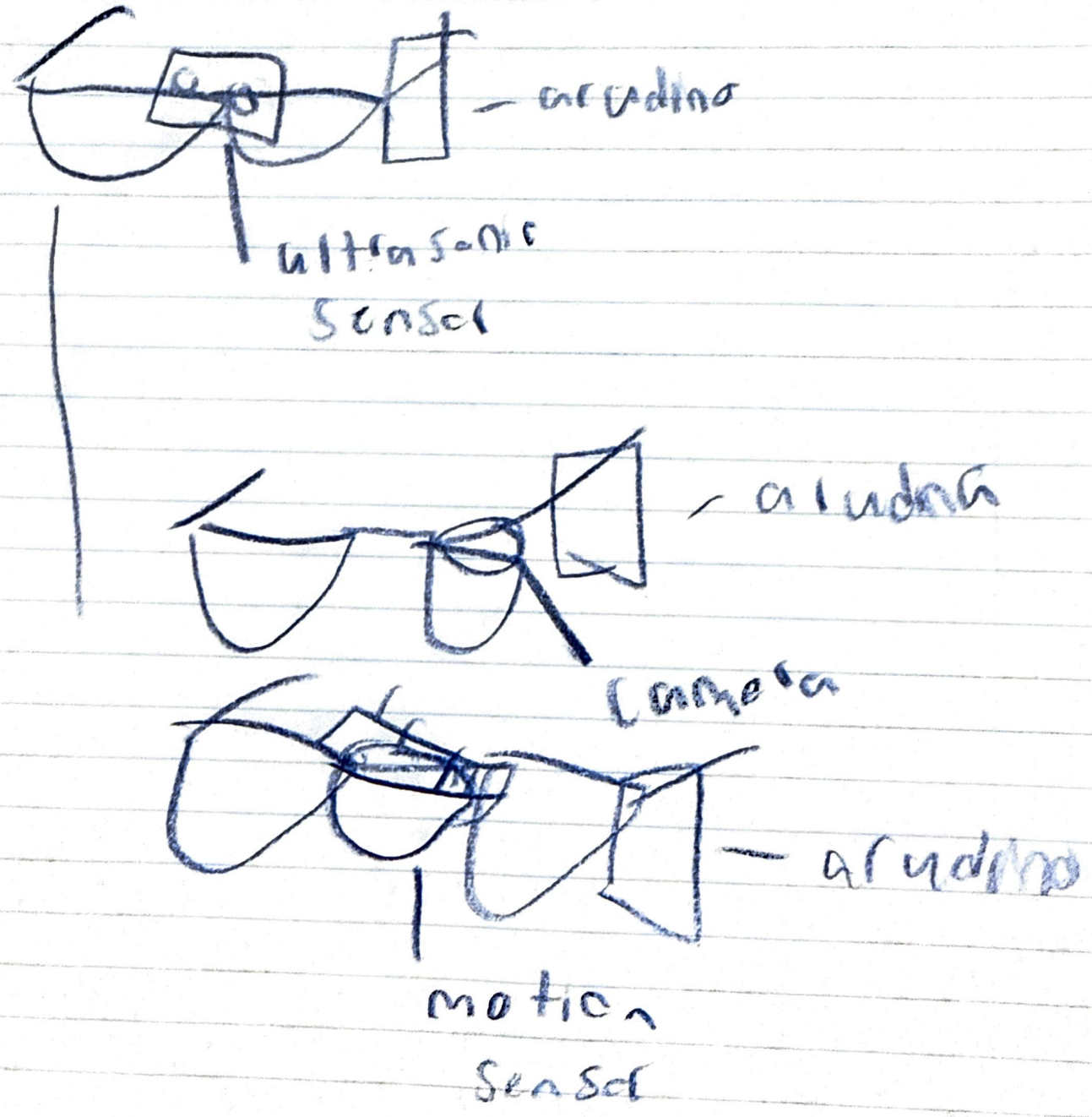
Oct 5th

in the first part of this project I draw some ideas



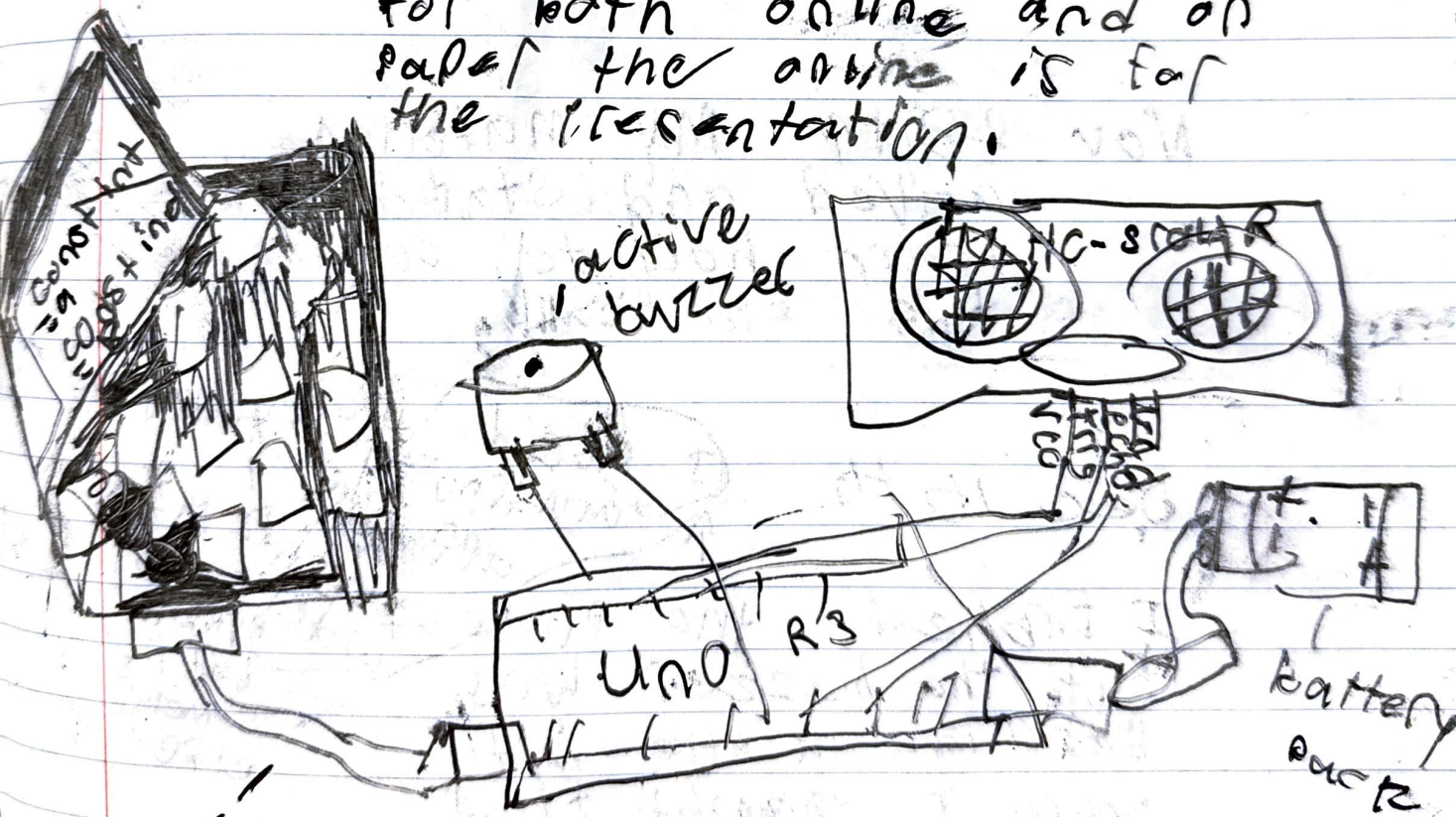
log book

Oct 8th 2025

I seatch for some website to get an understand ex. science buddies and education .com

oct 26th 2025

I made a base diagram for both online and on paper the online is for the presentation.

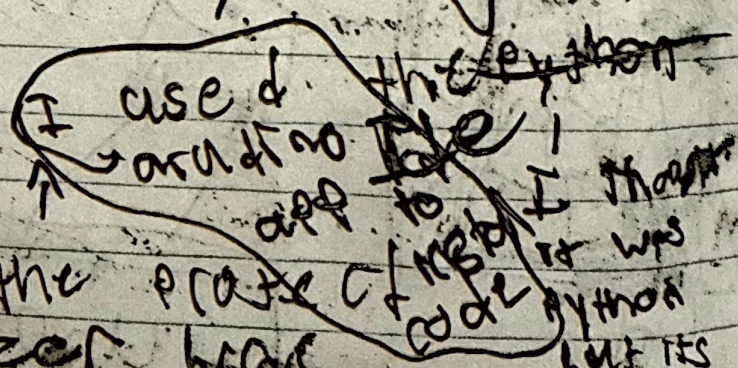


Nov 5

For my project
I need alot of materials

like an ultrasonic sensor
an arduino uno a
buzzer jumper wires
and a battery pack.
(active)

Nov 28th My material
arived and staited to
learn how to code
this especifically.



Dec 16th

I finished the project
but the buzzer was
beeping a little bit
were I thought that
that would be really
anoying for an person
who cant see

~~Nov 15~~

Dec 19th I found
some facts and put some
on the presentation

Arduino is a company
in italy the sells circuits
board and make micro controller
easy to use. There are
alot of different types
of Arduino like Nano, Uno
which are for the most
30 $ CAD unlike other
companys

Dec 20th ~~ado~~ I
added the finalised code to
be

```
const int 8
const int=8

const int trigein=9;
const int echoem=8;
const int buzzer=10;
const int ledem 13;

long duration
int distance
```

In order to get the code for the first I first needed to calculate the distance

distance = (speed x time)

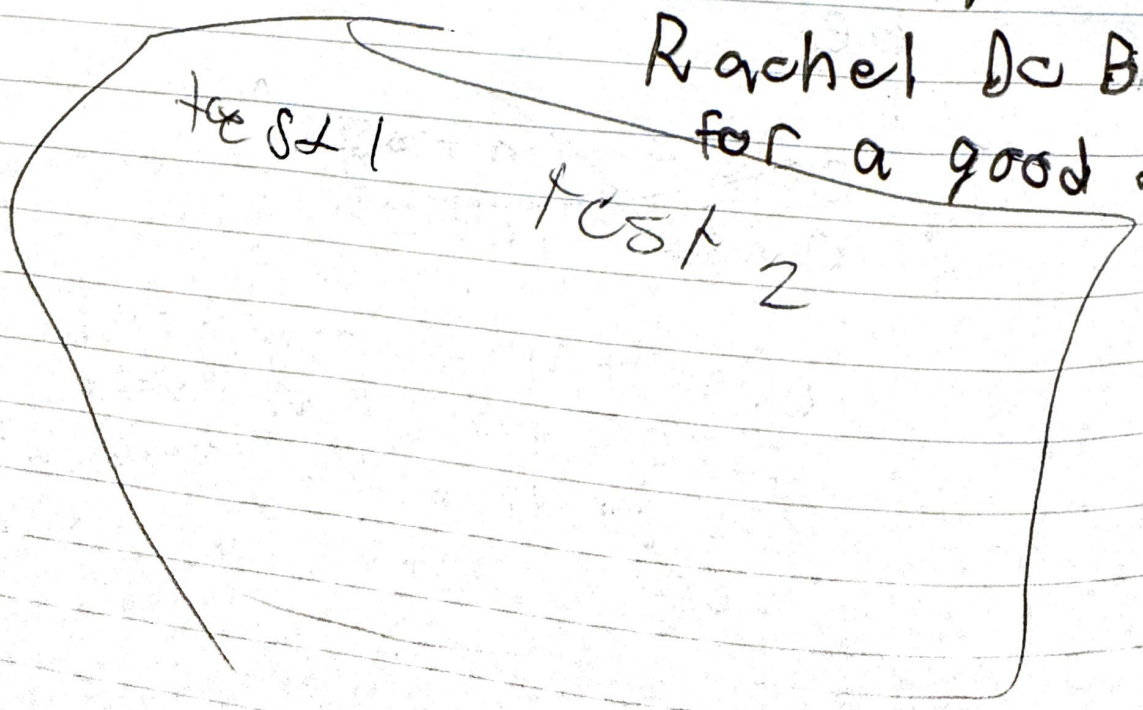
343 m/s
speed of sound

.034 cm/s

the ultrasonic censor calculates times in microsecond not seconds

(speed x time)/2

Thank you Rachel De Barios for a good tutorial



Dec 25th

I noticed some
errors in the
code that could
be irrating for a
blind person like
where the buzzer
always was buzzed
to calibrate the
system in seconds

also
I used
an passive
buzzer
instead
of an
active

Dec 25
I conduct even more background research

ex over 2.2 billon people globally have visual impairme

Dec 26th I got variable when I set to test the glasse

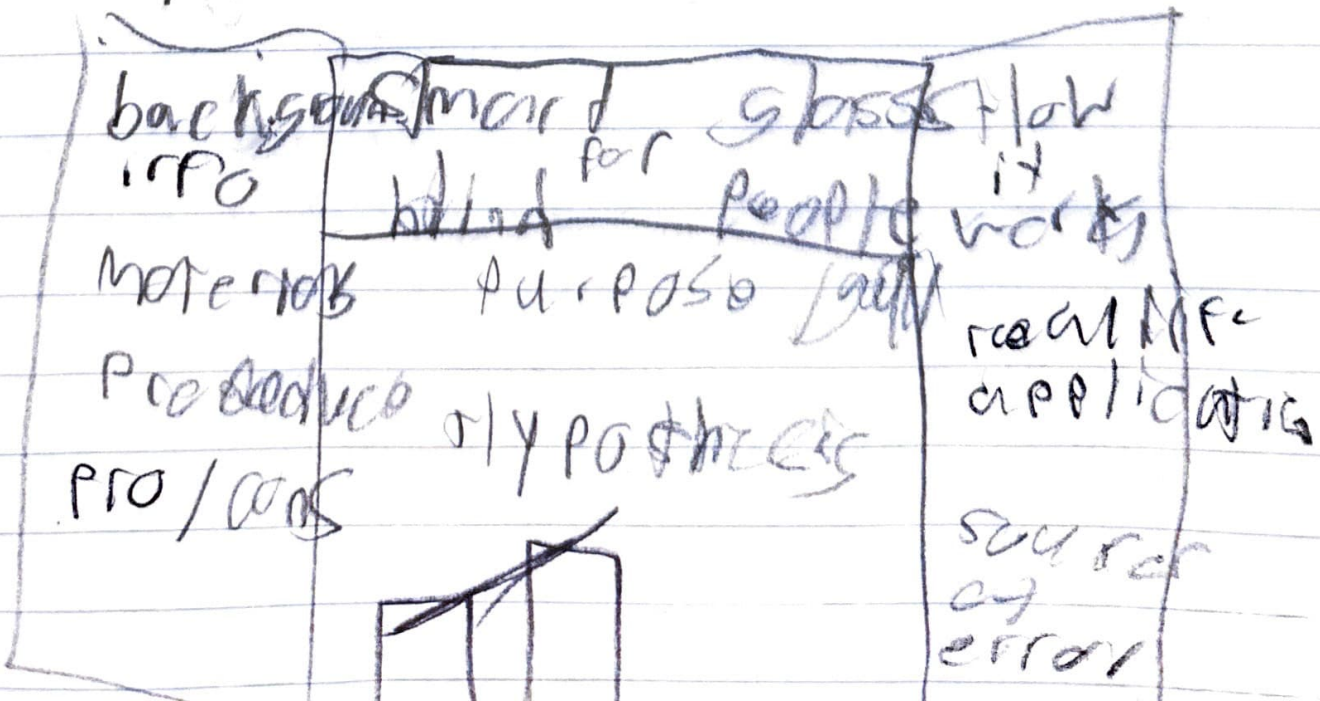
Manipulated d between the sensor and wall

Controled
- same sensors
- same arduino
- same buzzer
- same code
- same cutel
- same wall

Repeat when the buzzer beeps

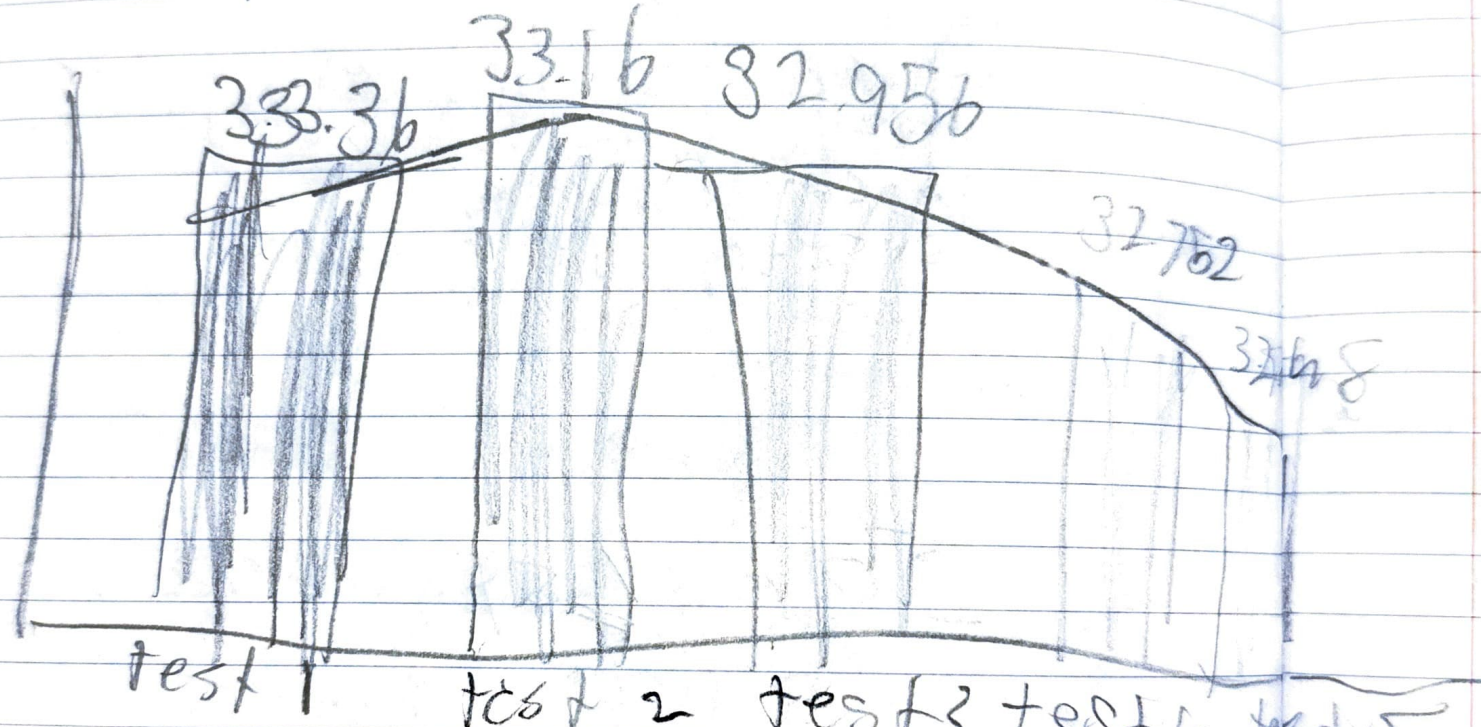
Jan 1st 2026

I was thinking of this as the trifold idea



Jan 3 2026

I make a graph with measure at what measurement it detect a obstacles



I notice that the more trials of test we do the more close it detect obstacles to what I put in the code

initial cm range 30 32 cm to 32 cm

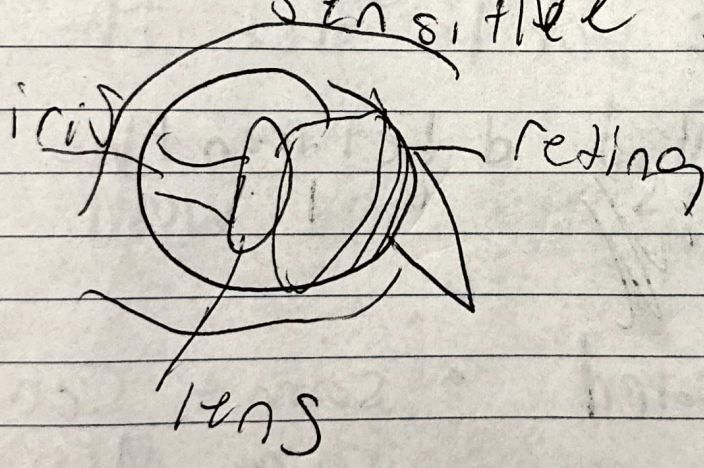
testing cm range

Jan 6th

I conduct some more background research

Key background research learn today

* the retina is a key factor of people being blind because it's sensitive to light.



Jan 7th + learn how the system works