Milestone 1 – Idea presentation
9/14 Wed

If you have formed your group, put your name on the ELMS->People->Group->Semester-long Project

Everyone | Groups

+ Group

Search Groups or People

▸ **Semester-long project 1** Semester-long project	4 students	
▸ **Semester-long project 2** Semester-long project	3 students	
▸ **Semester-long project 3** Semester-long project	4 students	
▸ **Semester-long project 4** Semester-long project	4 students	
▸ **Semester-long project 5** Semester-long project	4 students	
▸ **Semester-long project 6** Semester-long project	4 students	
▸ **Semester-long project 7** Semester-long project	3 students	
▸ **Semester-long project 8** Semester-long project	1 student	
Semester-long project 9 Semester-long project	0 students	
Semester-long project 10 Semester-long project	0 students	

5 min presentation + 3 min Q& A

2 Options:

a) Haven't decided on the idea:

Present 3 of your best ideas and explain to us with sketches

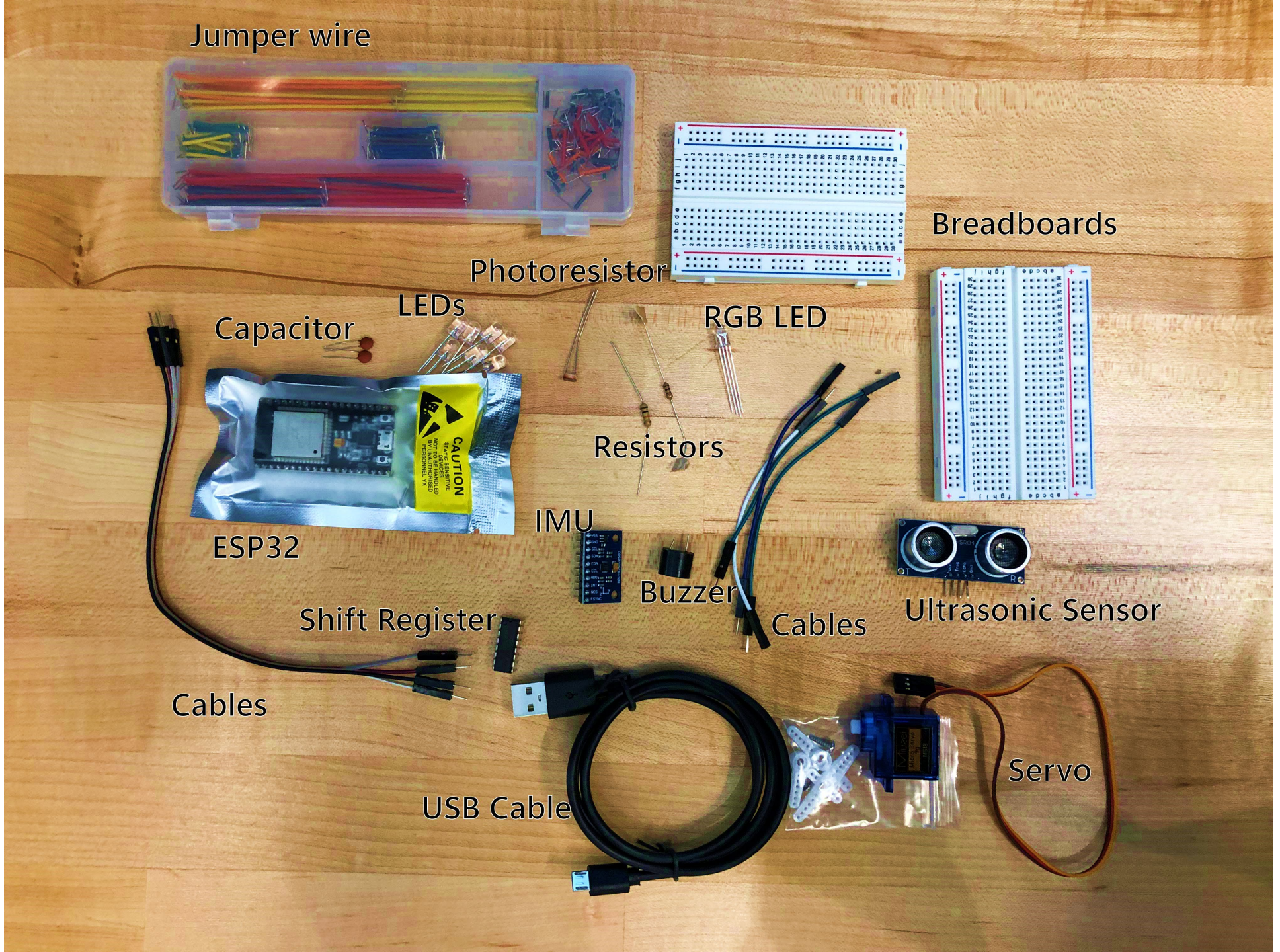
b) Know what to do:

Present your final idea – what are the functions, challenges and potential solutions

5 min presentation + 3 min Q& A

Submit a google doc with:

a) Problem Statement & Idea
b) System Block Diagram
c) Input/Sensing+Output/Actuation
d) Challenges + Potential Solutions
e) Bill of Materials(BOM)


Jumper wire
Breadboards
Photoresistor
LEDs
RGB LED
Capacitor
Resistors
ESP32
IMU
Buzzer
Cables
Ultrasonic Sensor
Shift Register
Cables
USB Cable
Servo

Portable Braille Label Maker

Huaishu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Store # 1007
Phone: 519-291-1
Rx# 9373889 Ref:0
R.PH. H. VALLIS
EASTDALE PUBLIC SCHOOL
TAKE 1 TABLET TWICE DAILY
TAKE WITH FOOD
MEDICINE
50 TAB
27 May 2017
SHOPPERS DRUG MART
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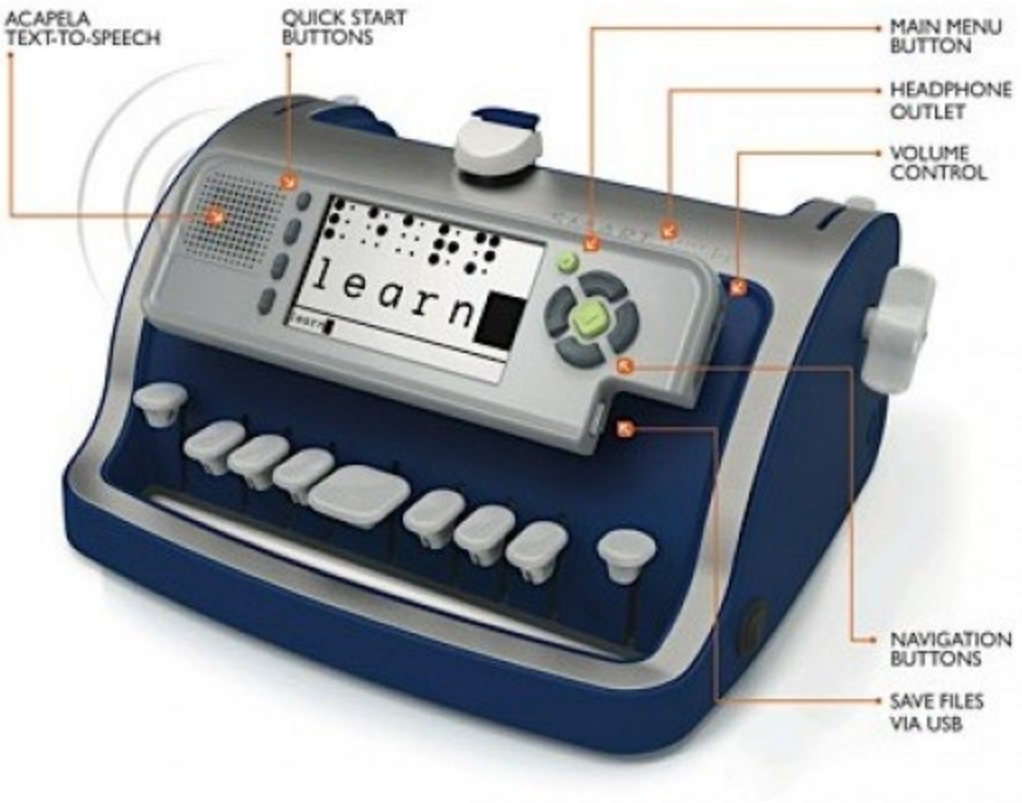
TDALE PUBLIC SCHOOL
KE 1 TEASPOONFUL (5M
3 TIMES DAILY FOR 7 DAYS
EDICINE
SHAKE WE
AND KEEP IN
REFRIGERATOR
5 ML
27 May 2017


CONFERENCE RO

Perkins SMART Brailler



$ 2K+

6 Dot Braille Label Maker

$ 775

Reizen Braille Labeler

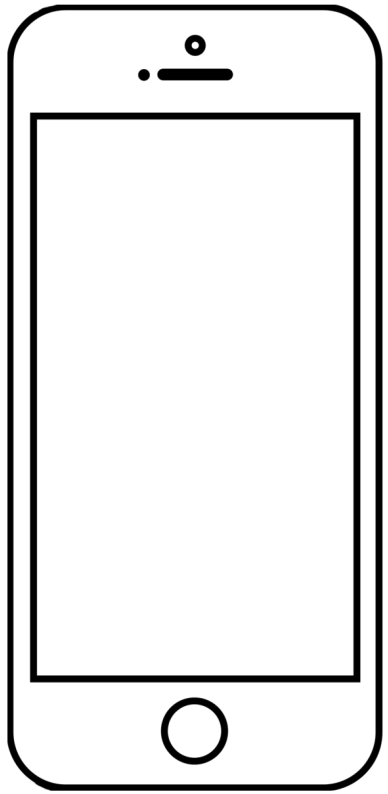
$ 40+
But fully manual
Hard to use

The idea **Low-cost, portable braille labeler that can be used by everyone**

Can be used both
Indoor and outdoor

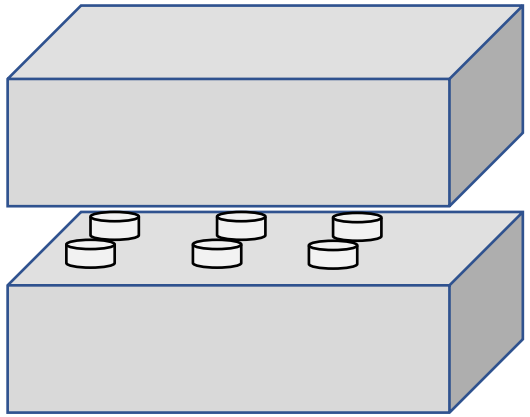
We can create braille
label for them

How



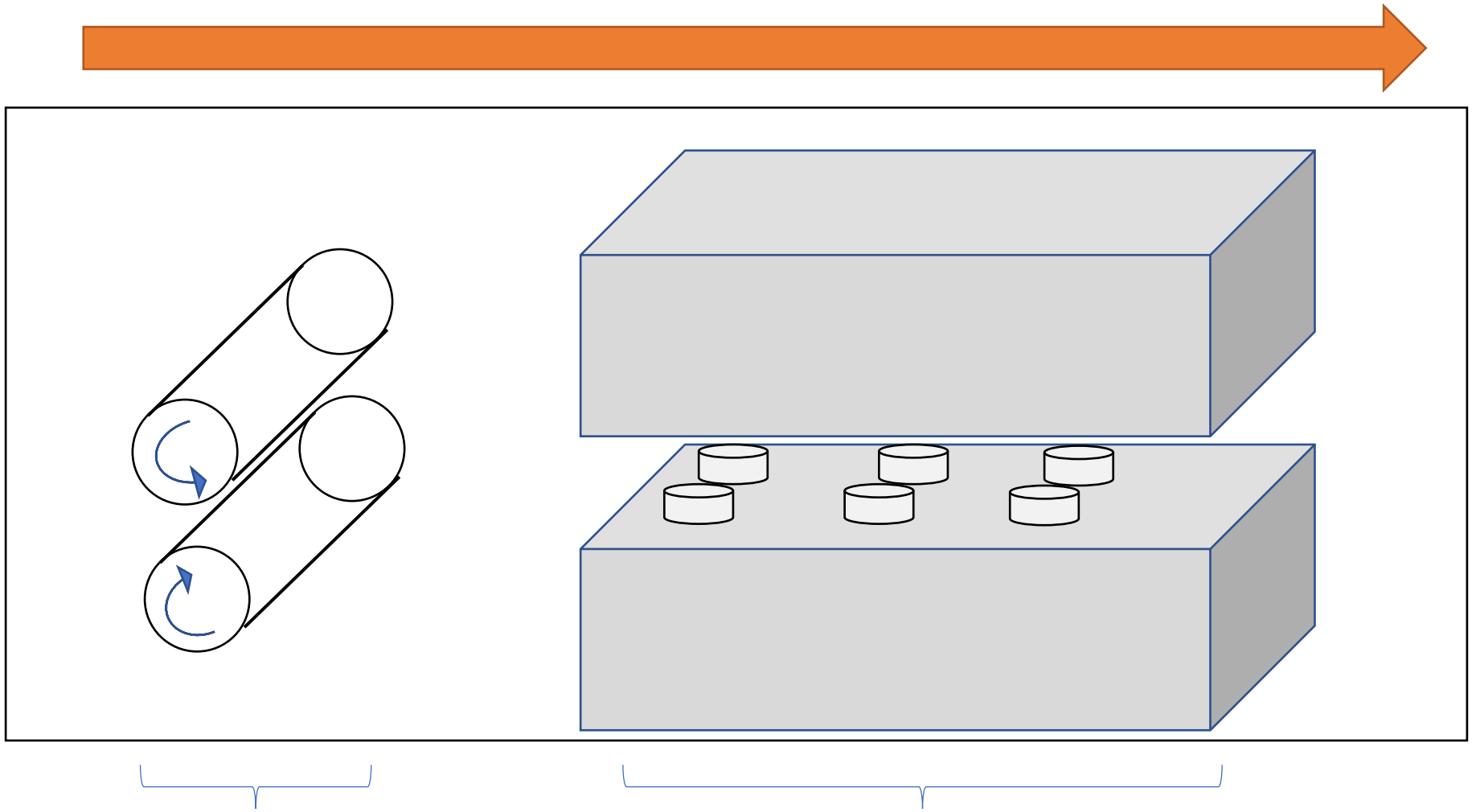
input platform
Either voice or type

+



custom build machine
6 pin controlled with Arduino
punch holes to tape

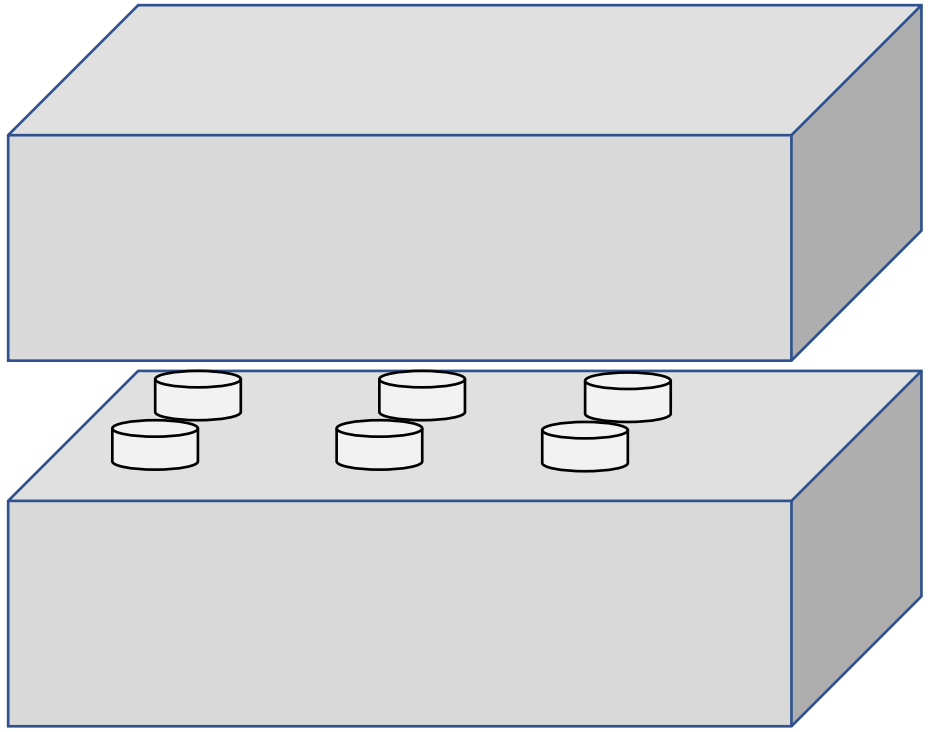
How



Tape feeder

Punch mechanism

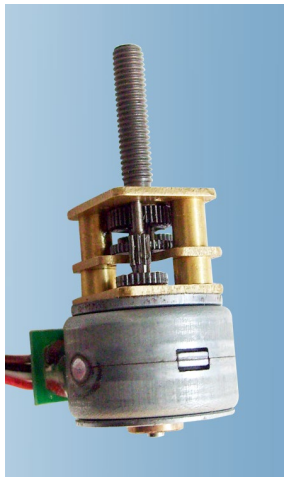
Main challenge



1. Limited physical space, dots need to be close to each other – how to arrange motors to control each of the 6 pins

2. Need large force to create hole or embossing

Potential solutions



Plan for the next milestone

1. Figure out the motor to create embossing
2. Create one working prototype that can create 2 dots at a close distance

Questions?

Rest of today’s lecture -> Fusion 360 Assembly