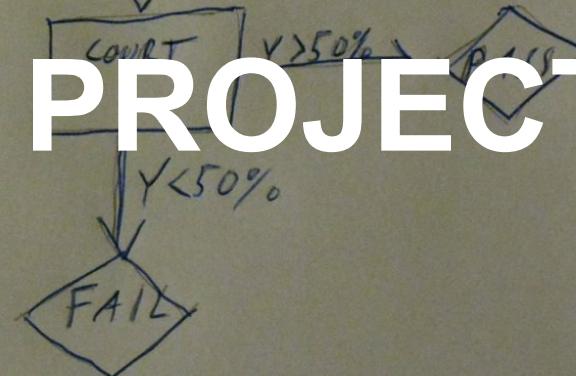
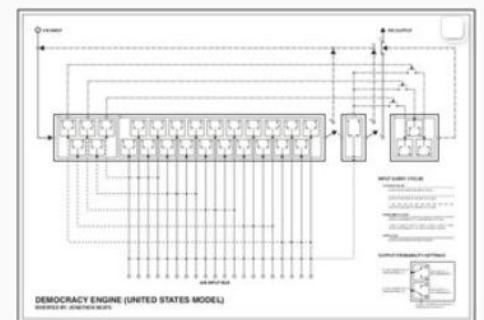
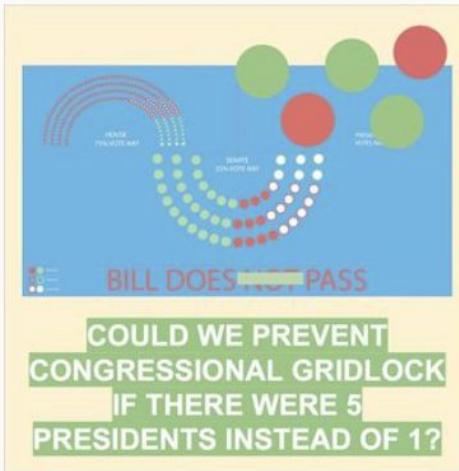
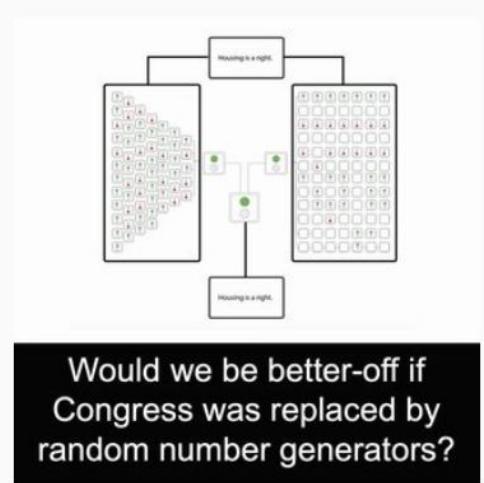
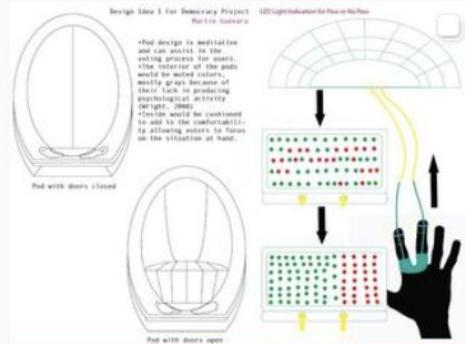
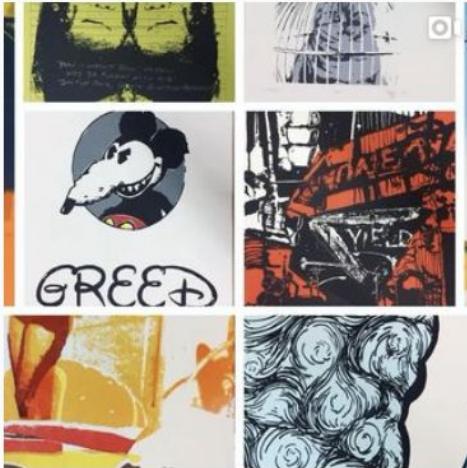


THE DEMOCRACY PROJECT

LOGIC FOR DEMOCRACY ENGINE

4/17

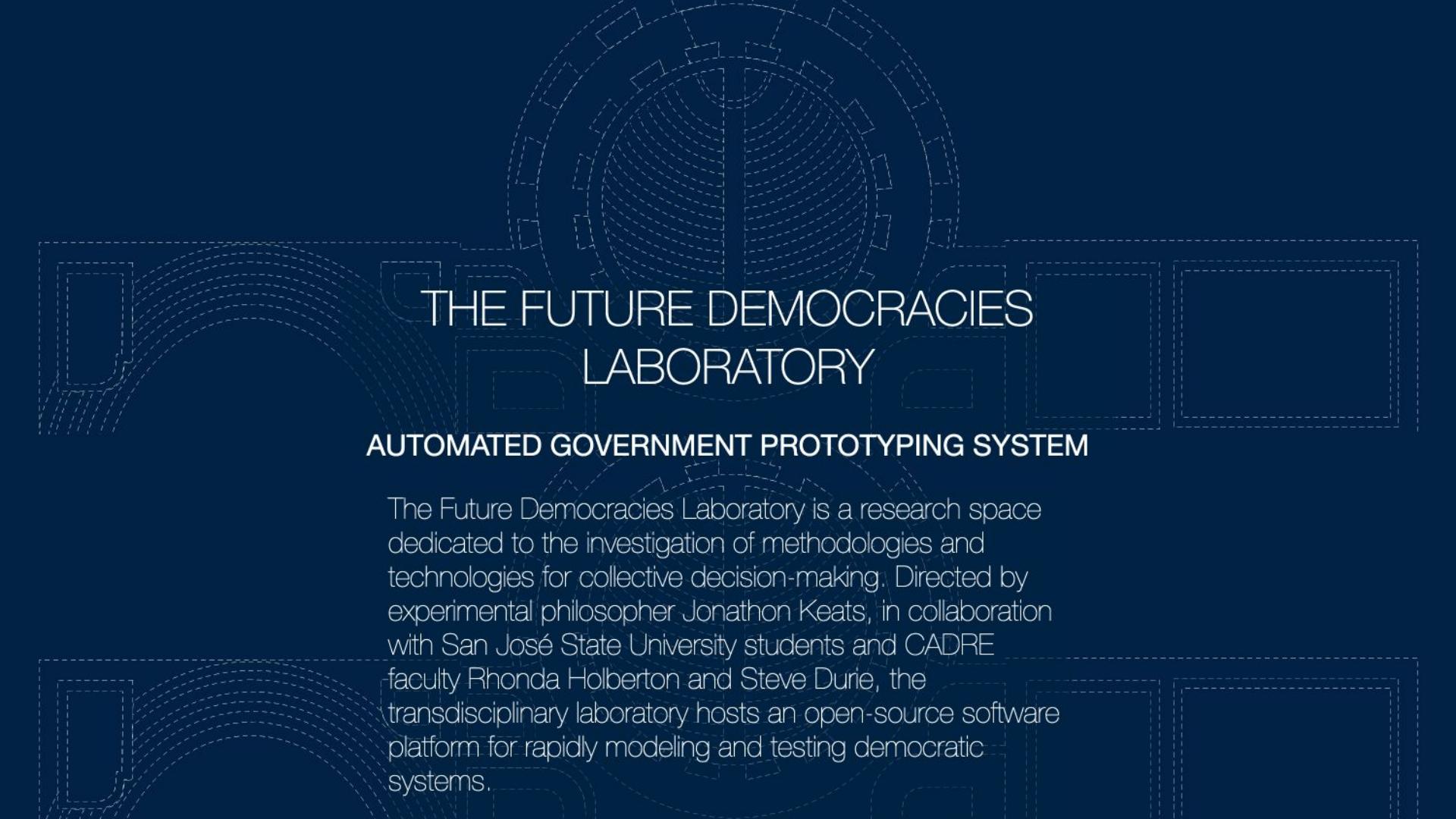




The Future Democracy Laboratory visualizes alternative democracies

Investigations with Jonathon Keats





THE FUTURE DEMOCRACIES LABORATORY

AUTOMATED GOVERNMENT PROTOTYPING SYSTEM

The Future Democracies Laboratory is a research space dedicated to the investigation of methodologies and technologies for collective decision-making. Directed by experimental philosopher Jonathon Keats, in collaboration with San José State University students and CADRE faculty Rhonda Holberton and Steve Duré, the transdisciplinary laboratory hosts an open-source software platform for rapidly modeling and testing democratic systems.

THE DEMOCRACY PROJECT

Student Workshop 1 // Data Visualization

How does the way we represent data change the way we think about data?
Monday, September 23
@ Innovation Design Collaboration (IDC) space Lower Level @ MLK Library
1-3pm & 3-5pm
(two identical workshops, free & open to all with students RSVP)



Student Workshop 2 // Systems Thinking

How to Represent Political District, Voter, Legislation, & Relationship Between them?
Wednesday, October 9
@ Innovation Design Collaboration (IDC) space Lower Level @ MLK Library
1-3pm & 3-5pm
(two identical workshops, free & open to all students with RSVP)

The Democracy Project Panel

October 10th, 2019
@ Hammer Theatre 4 (upper level)
Doors Open 6pm
7pm - 830pm



Jonathon Keats

Experimental philosopher, artist and writer.

SJSU

|

COLLEGE OF HUMANITIES
AND THE ARTS

deep
humanities
& arts

The Democracy Project imagines a world where congress is replaced by computers to provoke a reimagining of democratic representation in the US.

According to many voters worldwide, democratic political systems are no longer working.

Might the solution be to engineer politicians out of the system; can we replace our current government with robots?

Where rather than voting for people, voters allocate priorities for things like climate stability, equitable distribution of resources, and legislations that supports humane systems of justice?



Democracy Project at SJSU

Students at SJSU worked with artist [Jonathon Keats](#) and curator [Joel Slayton](#) on a project that will create an ‘electronic & code based congress’ to visualize the legislative process if congress were replaced by artificial intelligence.

- Development Platform: Student built sensors, [Arduino](#), [Processing](#), [p5.js](#)

Results

- [Online congressional model V1](#)
- [Democracy Project Website](#)
- Democracy Project Beta Website



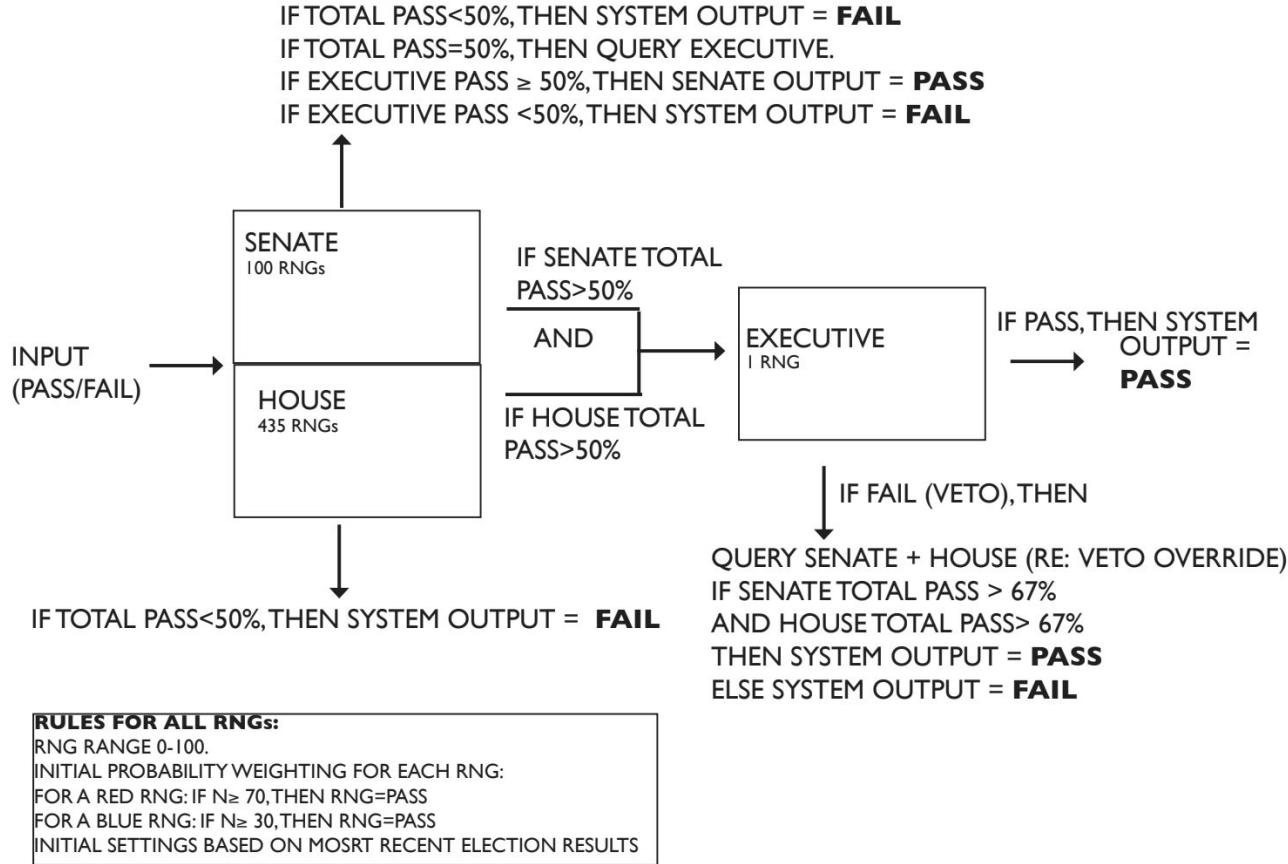
ART 178 - Student Ideation

2019, Professor Holberton



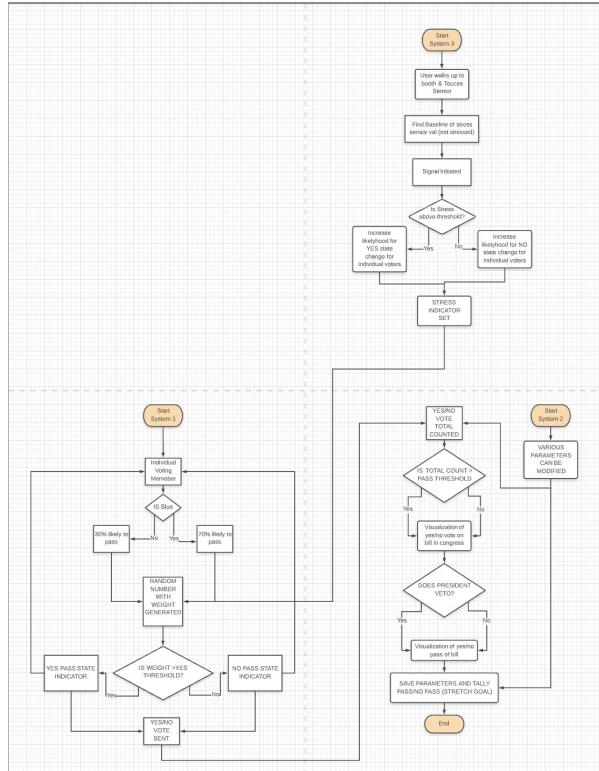
LEGISLATIVE SIMULATOR CIRCUIT LOGIC

PREPARED BY JONATHON KEATS 2/4/2020



IDEATE: Use Components From Discovery in Prototypes

DEFINE COMPONENTS



List Components:

1. House: 435

In the House of Representatives, a state's representation is based on its population. Members of the U.S. House of Representatives each represent a portion of their state known as a Congressional District, which averages 700,000 people.

2. Senate: 100

Each state sends two Senators to represent their state in the U.S. Senate. Senators represent the entire state.

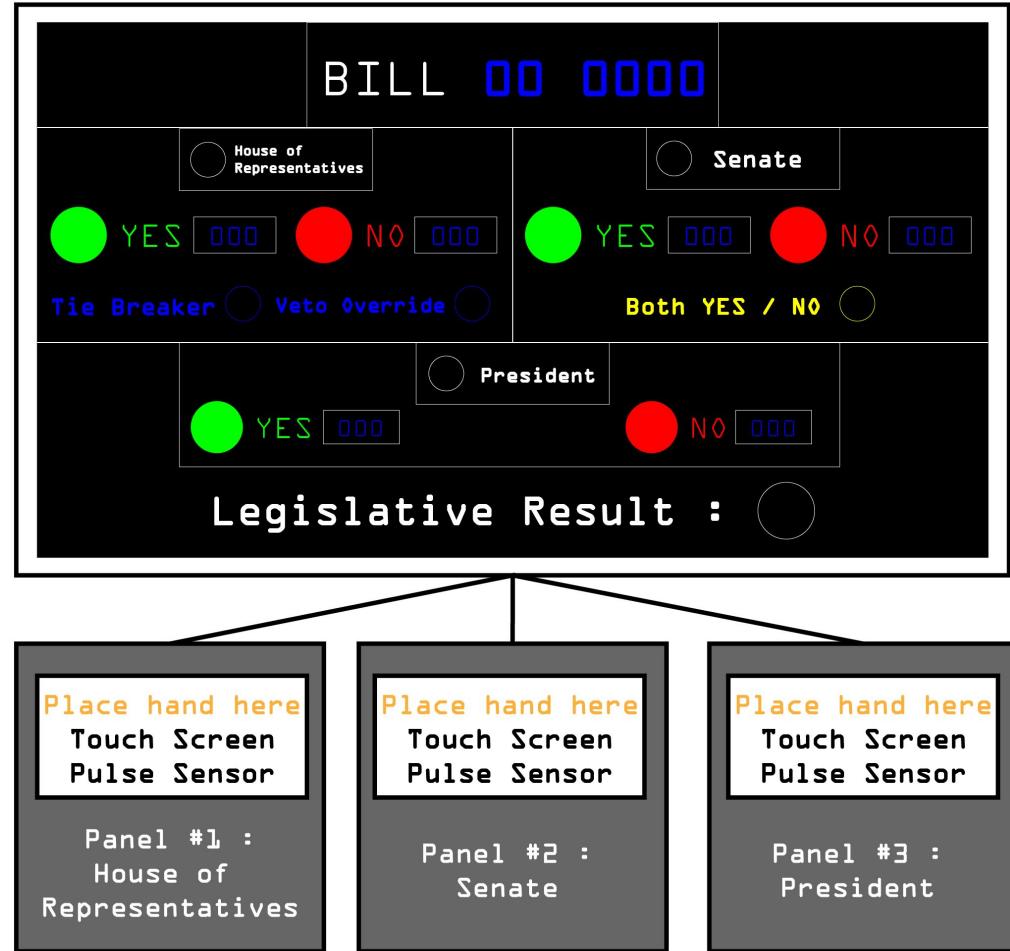
3. President: 1

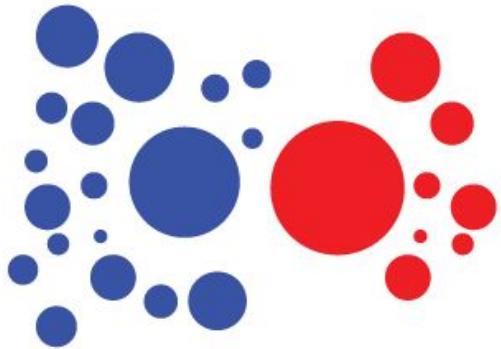
The president is elected by the entire populace of the United States through the Electoral College.

Flow-Chart prepared by Rhonda Holberton

Wild Card

- Giant projection screen connected to booths
 - Displays the screen of the legislative
 - Touch screen with pulse sensors for each panel
 - To depict and determine the votes being placed

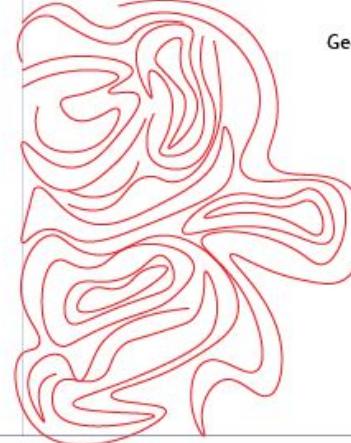




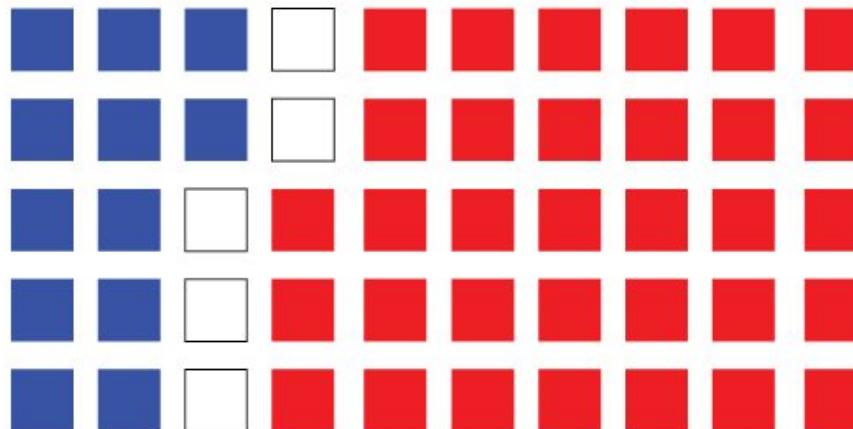
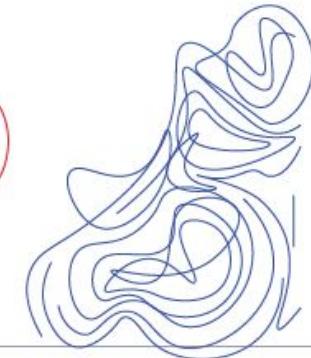
Number of circle increase
Abstract

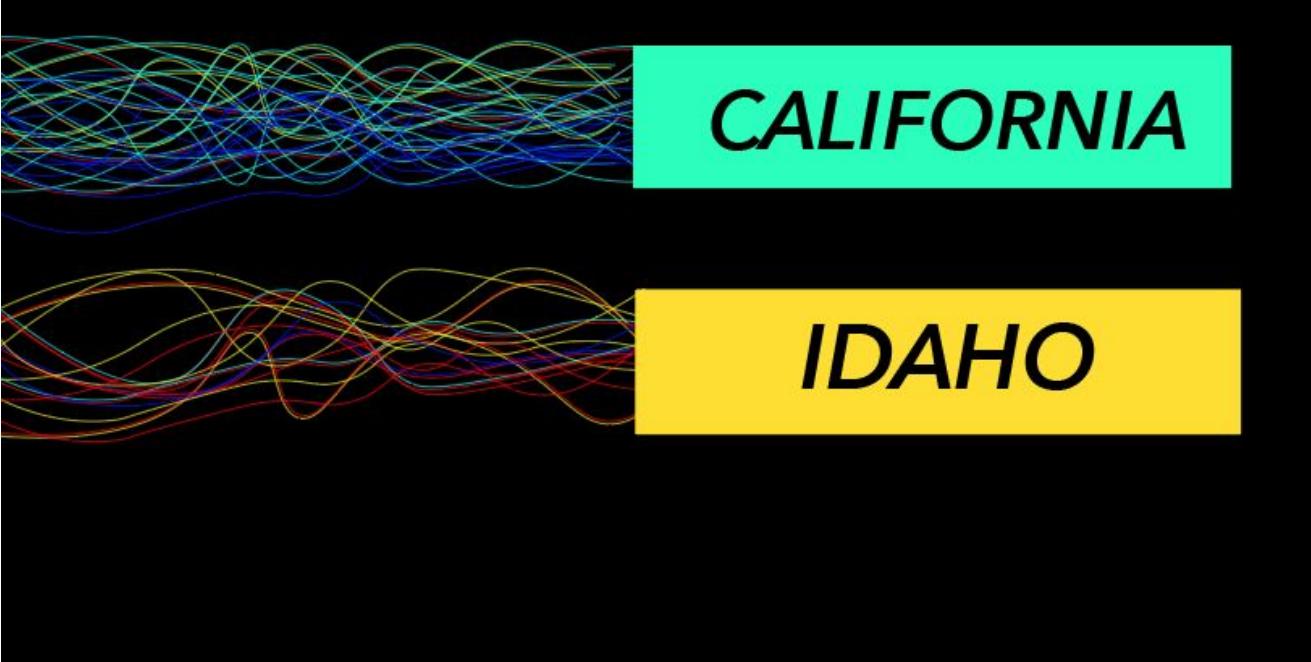
Wild Card

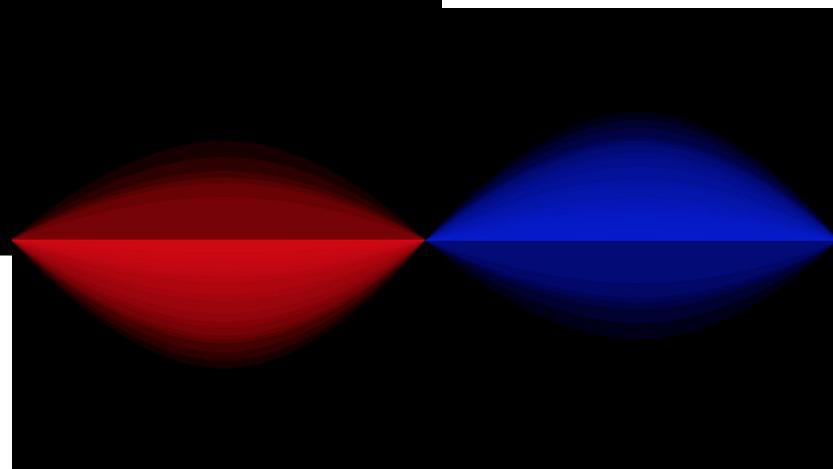
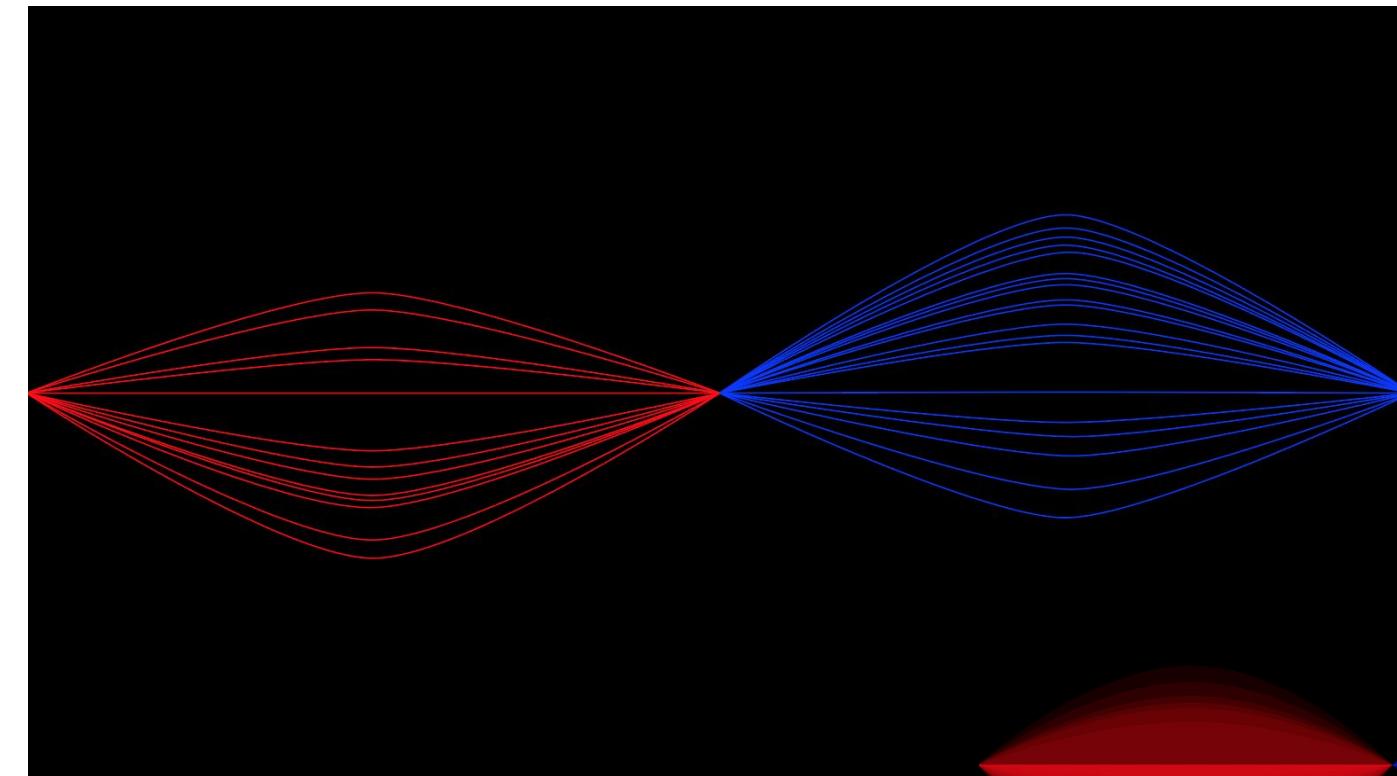
either side expands or
line color fades between red and blue



Geo Topographic Map







main idea - graphics look like LEDs for text, numbers, and colors.
acrylic panels

Law 1:

V

Calender

V

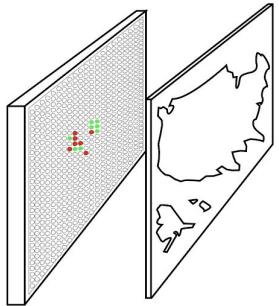
passes house of representatives (218 of 435 yes or no)

V

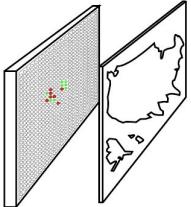
needs to pass senate (51 of 100 = yes or no)

V

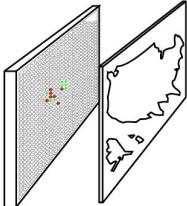
presidents signs off on it (sign or veto bill = yes or no)



panel 1
house of representatives
have matching number of lights represent each state, default will have normal lights over



panel 2
reduce number of circles to 2 per state displaying green or red
have matching # of lights represent each state, default will have normal lights over

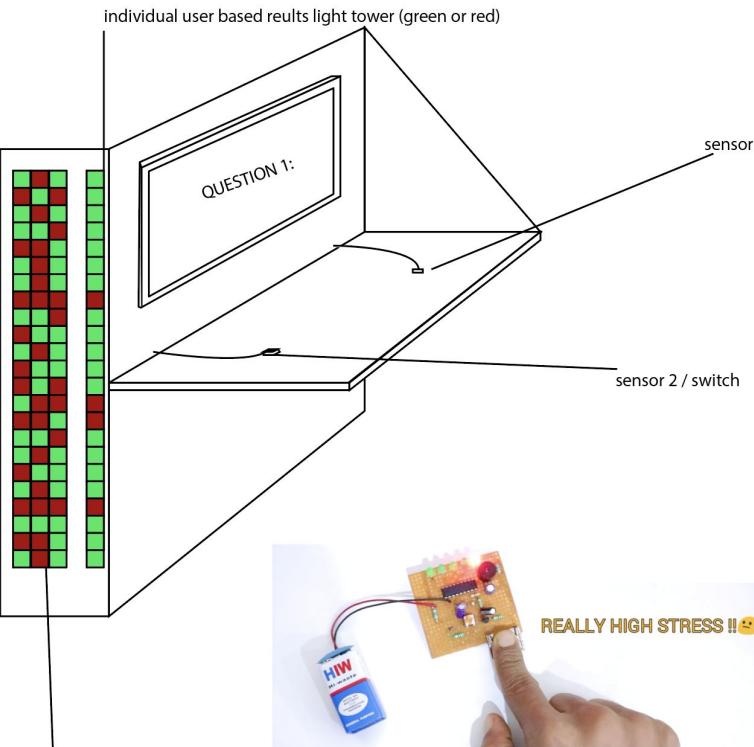


panel 3 - president
circles either turn green or red based on presidential vote

HDR YES 218 NO 217 SEN YES 51 NO 49 PRES YES 1 NO

Legislative Display Screens

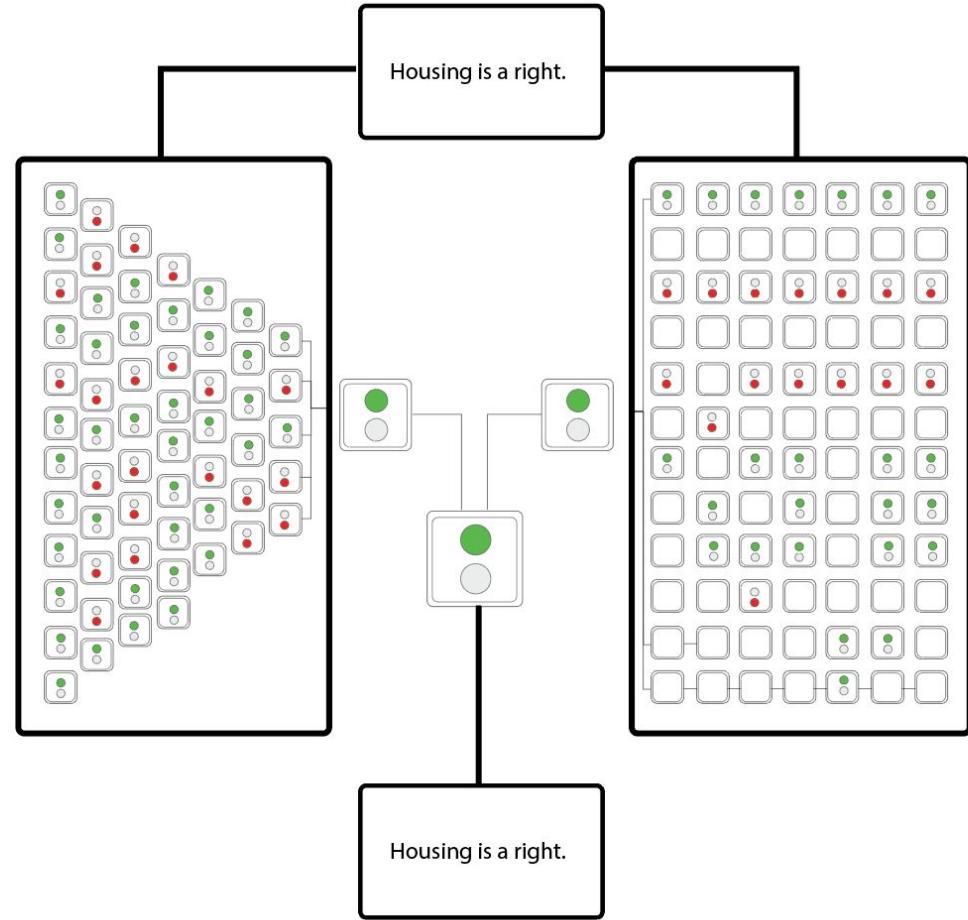
Stress-calibrated Polling Unit



OVERALL RESULTS FROM ALL PARTICIPANTS

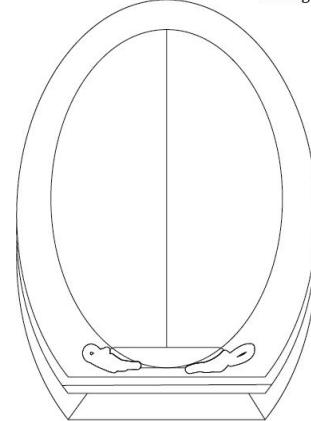
heart rate sensor
GSR

- Robotic
- Black box no information
but the light
- only seeing the changing
of the colors starting from
the law as the lights spread
funneling into the middle

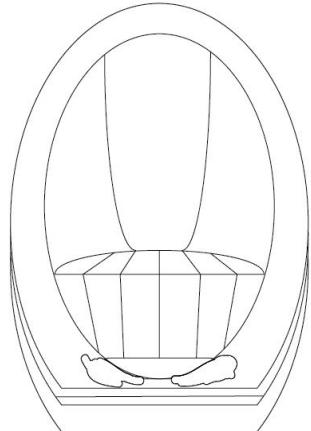


Design Idea 1 For Democracy Project
Martin Guevara

- Pod design is meditative and can assist in the voting process for users.
- The interior of the pods would be muted colors, mostly grays because of their lack in producing psychological activity (Wright, 2008)
- Inside would be cushioned to add to the comfortability allowing voters to focus on the situation at hand.

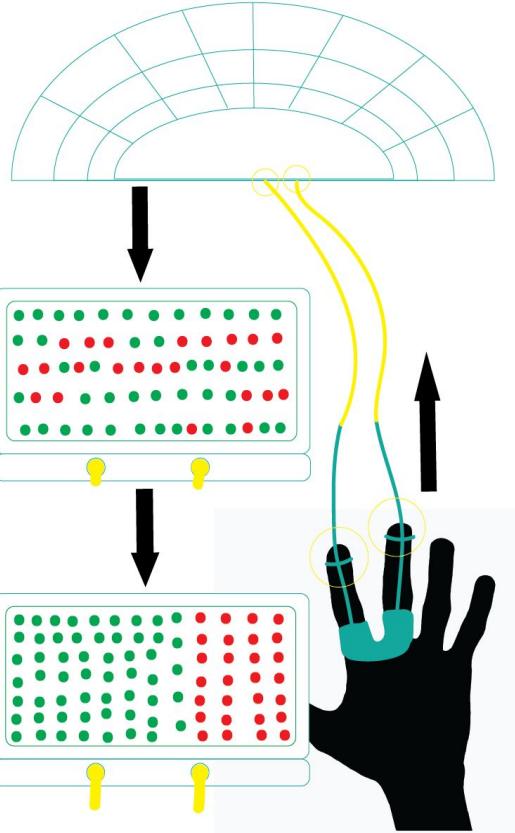


Pod with doors closed

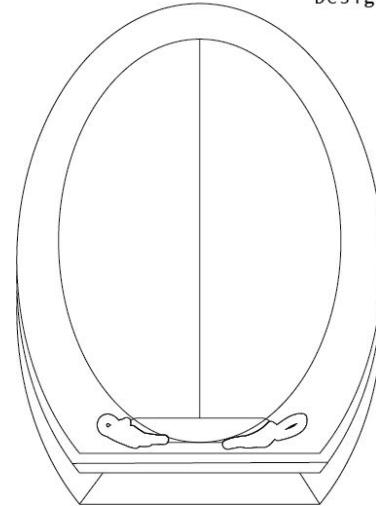


Pod with doors open

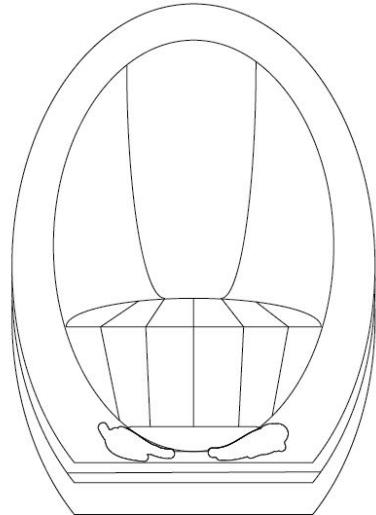
LED Light Indication for Pass or No Pass



Design Idea 1 For Democracy Project
Martin Guevara

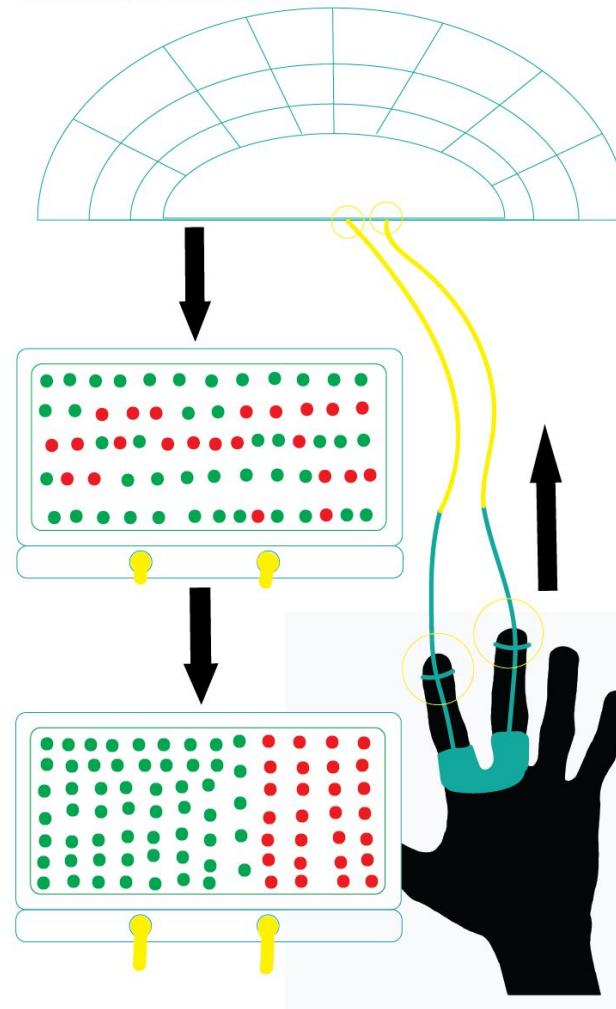


Pod with doors closed



Pod with doors open

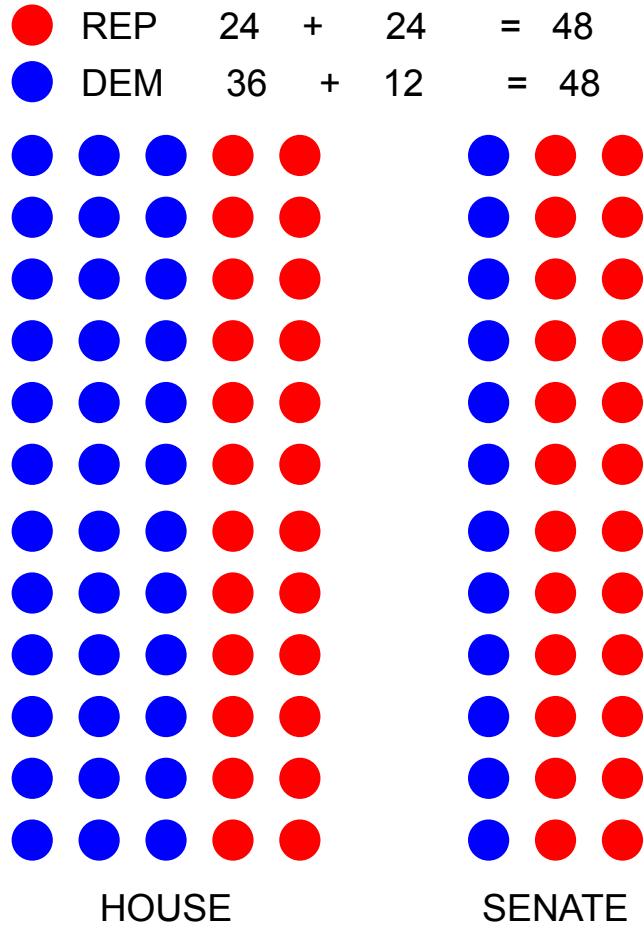
LED Light Indication for Pass or No Pass



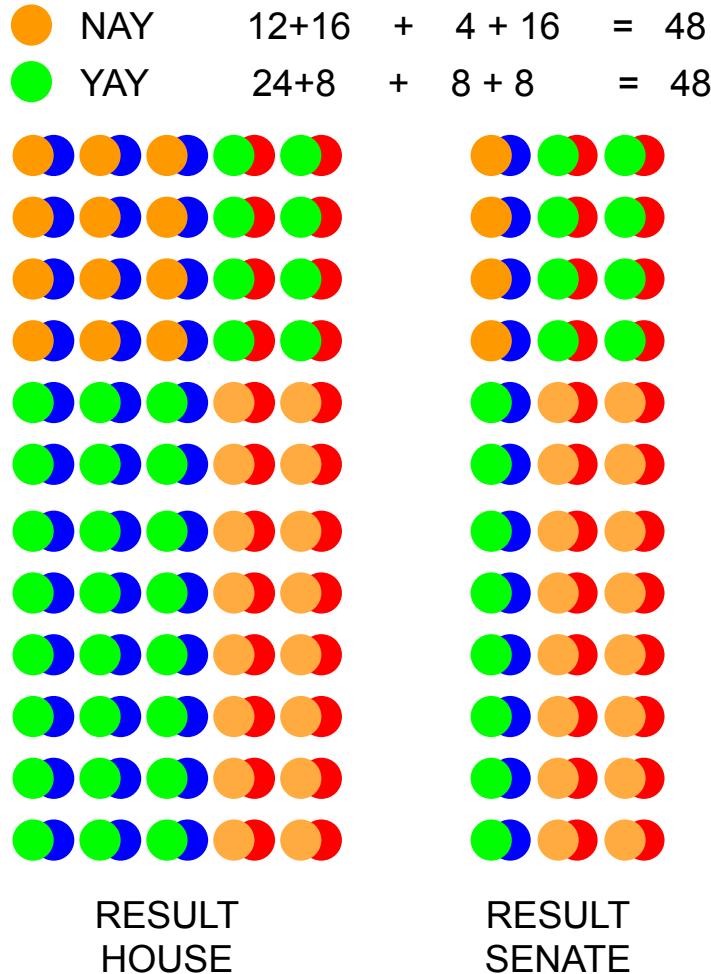
Democracy Engine Design Prototype V1



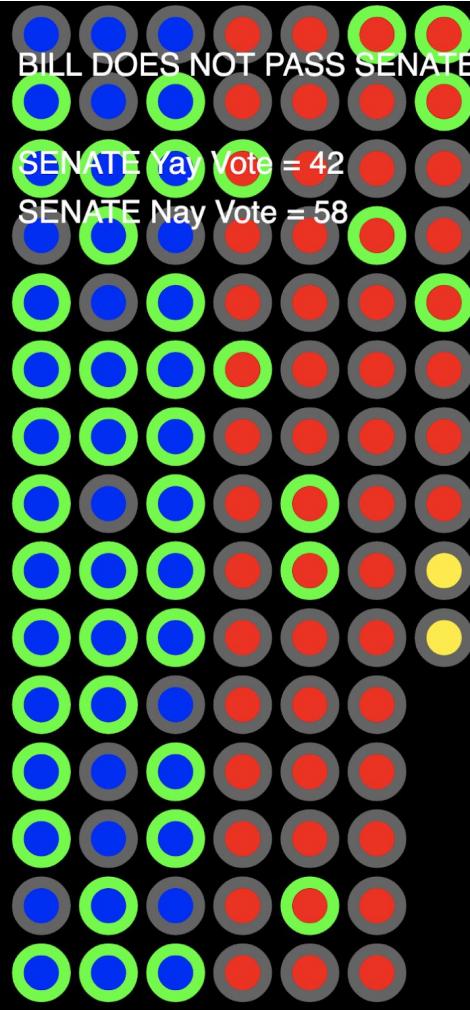
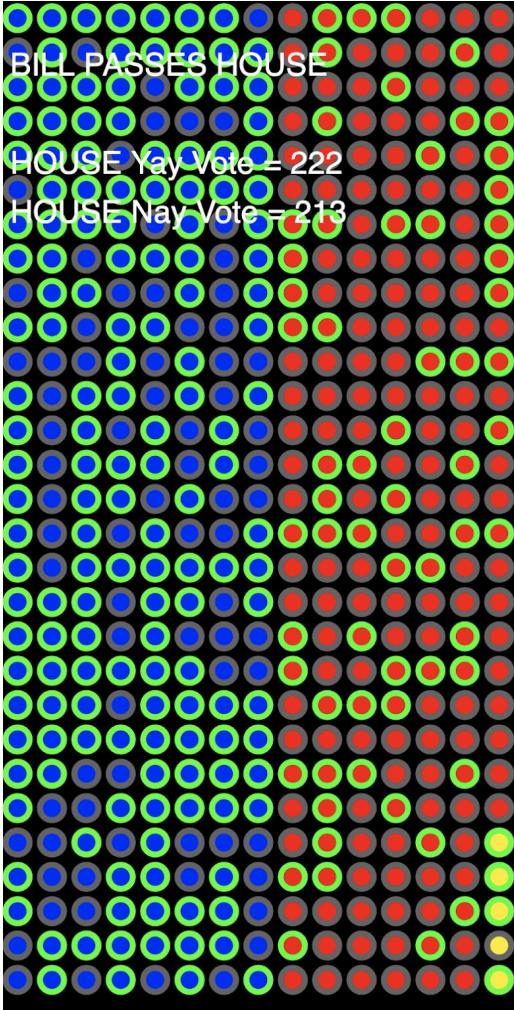
IDEATE: Simplified Example



VOTE



IDEATE: v1 Design

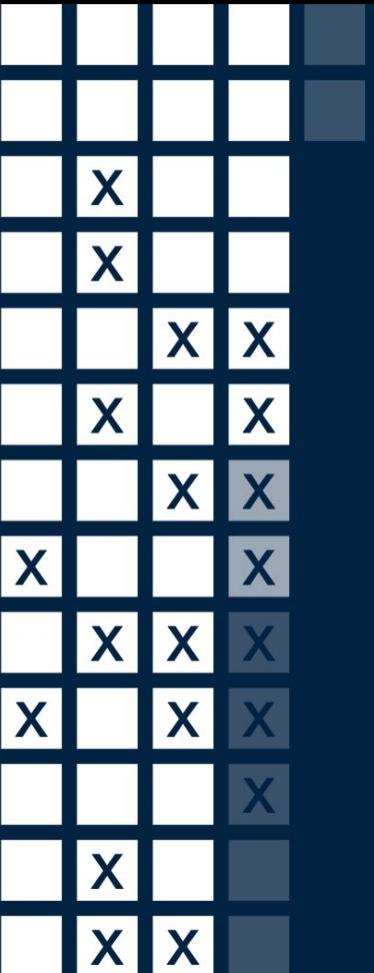
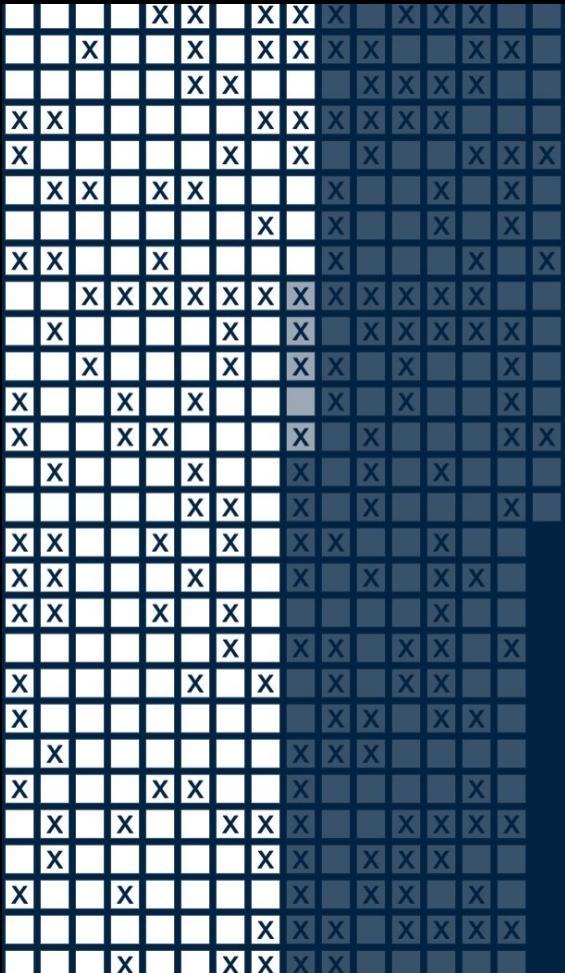


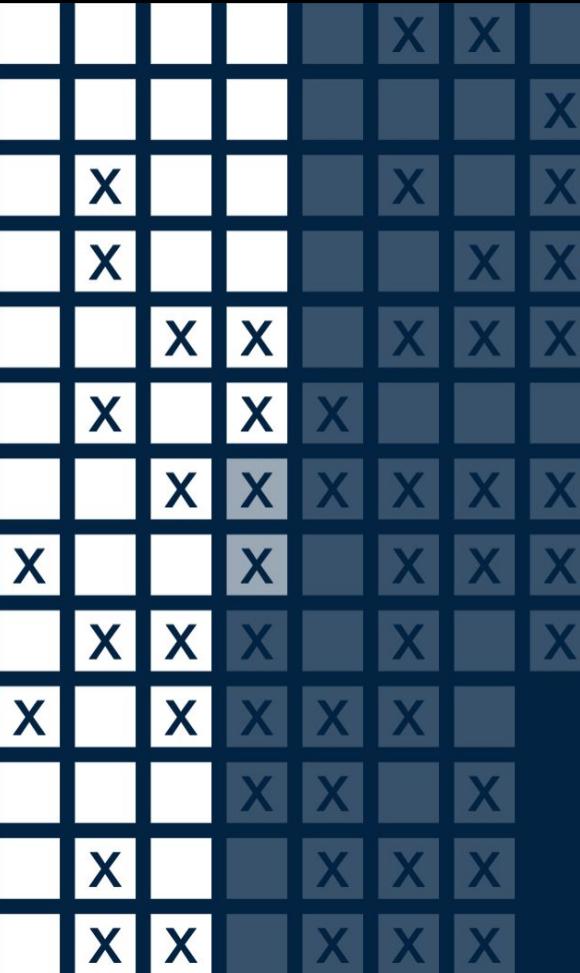
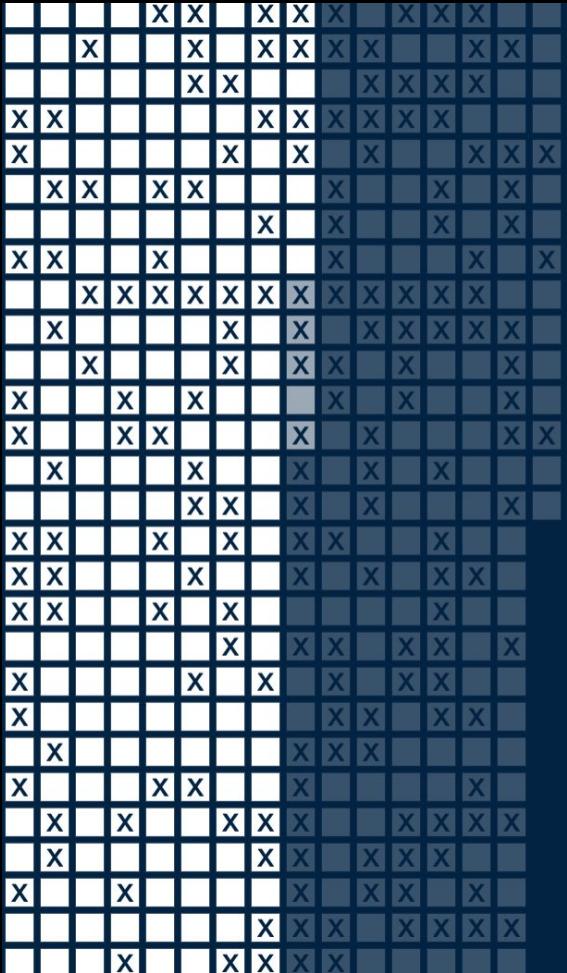
BILL DID NOT PASS ALL HOUSES:
NO PRESIDENTIAL VOTE

435	Number total voting members in the House
100	Number total voting members in the Senate
1	Number of Presidents
0.5333	Percentage of Democrats in the House
0.4551	Percentage of Republicans in the House
0.0115	Percentage of Third Parties in the House
0.45	Percentage of Democrats in the Senate
0.53	Percentage of Republicans in the Senate
0.02	Percentage of Independents in the Senate
	Precentage of Democratic Presidents
1	Precentage of Republican Presidents
	Precentage of Independent Presidents
0.7	Historical likelihood of a Democratic Yay vote on any given bill
0.3	Historical likelihood of a Republican Yay vote on any given bill
0.5	Historical likelihood of an Independent Yay vote on any given bill
0.67	Percentage of yay votes to be considered a Supermajority
5	How stressed are you on a scale of 1-10? 1 = bliss state. 5 = healthy amount of stress. 10 = very stressed
5	How stressed is the planet on a scale of 1-10? 1 = perfect harmony. 5 = healthy amount of dynamic stress. 10 = very stressed

Democracy Engine Design Prototype V2

**Web design/development by DMA BFA
Asra Siddiqui. Engine design &
functionality updates by DMA alumnus
Angelabelle Abarrientos**





HOUSE OF REPRESENTATIVES

TALLY:
YES VOTES= 274
NO VOTES= 161

BILL PASSES HOUSE OF
REPRESENTATIVES

SENATE

TALLY:
YES VOTES= 59
NO VOTES= 41

BILL PASSES SENATE

PRESIDENT

TALLY:
YES VOTES= 0
NO VOTES= 1

BILL FAILS PRESIDENT
PRESIDENT VETOS: BILL DOES
NOT PASS

VICE PRESIDENT

DOES NOT VOTE

Phyto Democracy



Banana Differential Balloting Experiment

by Jonathon Keats

12/4, Fri @1:30pm

Event will be on record on ZOOM



Join CADRE S.O with experimental philosopher Jonathon Keats to help develop a banana differential balloting system for the Future Democracies Laboratory at SJSU.

This workshop will have an optional participatory activity.
What to bring if you want to participate:



A Potted Plant



2 small unripe bananas (green)



Two extra-large jars or bowls (big enough to cover your plant)



A soda can



An indelible marker



A watch or clock

Banana Differential Balloting Experimental Protocol

Materials:

- 1) A potted plant
- 2) Two small unripe bananas (i.e., equally green)
- 3) Two large jars (e.g., mason jars)
- 4) A can of Coke (or equivalent)
- 5) An indelible marker
- 6) A watch or clock
- 7) A camera or smartphone
- 8) A computer with photo editing software

Method:

- 1) Using your marker, write 'Polling Unit' on one banana and 'Control Unit' on the other banana. Write 'Calibration Unit' and the current date and time on the can of Coke. Write 'Voter' and the location on the plant pot. Also inscribe a voter number on the pot if more than one plant is to be polled.
 - 2) Photograph the Polling and Control Units next to the Calibration Unit for color calibration. Take your photos in good light.
 - 3) Place the Polling Unit and the Voter under one jar. Place the Control Unit under the other jar. Both jars should be set in a place where there is adequate sunlight.
 - 4) At the end of four days, remove the Polling and Control Units and photograph them with the Calibration Unit.
 - 5) Return the Voter to its ordinary place indoors or outdoors.
 - 6) Repeat the above protocol monthly, polling the same Voter for as many months as possible.
- Note: More plants can be polled using a single control unit and calibration unit.

How to analyze the results:

- 1) Use the color of the Calibration Unit to match the color of the photographs.
- 2) Compare the ripeness of the Polling Unit to the ripeness of the Control Unit on Day 4. Compare the first-month results to results from later months.
- 3) Count a vote for the status quo if the difference in ripeness between the Polling Unit and the Control Unit decreases or stays the same from month to month. Count a vote for change if the difference in ripeness between the Polling Unit and the Control Unit increases from month to month.

Some additional factors to monitor and document (if possible):

- light level
- temperature
- humidity

[LINK TO PROTOCOL DOCUMENT](#)

INTRODUCTION:

The Banana Differential Balloting Station is a simple apparatus for enfranchising plants in political systems by including their policy preferences in decision-making processes.

Facilitating ubiquitous polling of flora by enlisting simple materials for rudimentary hormone measurement, the balloting station has the potential to avoid the limitations of expensive laboratory equipment and encourage participation in the botanical polling process by a broad range of humans globally.

The following protocol is intended as a starting point for experimentation. Some suggested variations follow the basic protocol. Experimenters are encouraged to be creative in the design of their experiments, but also rigorous in execution and documentation of results.

Method:

1. Using your marker, write 'Polling Unit' on one banana and 'Control Unit' on the other banana. Write 'Calibration Unit' and the current date and time on the can of Coke. Write 'Voter' and the location on the plant pot. Also inscribe a voter number on the pot if more than one plant is to be polled.
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