



og aðrar örtölvur

**Anna María K. Þorkelsdóttir, kennsluráðgjafi
Hildur Rudolfsdóttir, kennsluráðgjafi**

1. Hvað leiðir rafmagn?
2. Makey Makey og Scratch
3. TouchBoard
4. Verkefni dagsins
 - a. Stigvél
 - b. Gagnvirkt veggspjald
 - c. TouchBoard



Dagskrá vinnustofunnar



Dæmi um
hluti sem
leiða rafmagn

Vírar

Leiðnilímband

Leiðniþráður

Leiðnimálning

6B grafít blýantur

Leiðnilím (úr salti

án joðs!)

...

Makey Makey

- Framlenging á lyklaborði tölvu (örtölva?)
- Þarf alltaf að vera í sambandi við tölvuna
- Þarf alltaf að hafa lokaða hringrás til að rafeindir flæði (gott til að kenna rafmagn)
- Oftast nýtt í tengingu við Scratch forritið
- Stór verkefnabanki á netinu

-> <https://www.instructables.com/makeymakey/>



Banana
Piano





Kendrick Lamar "The Heart Part 4"

You making him nervous, the music is loud
Hoe, lay Z Hall of Fame, sit your punk ass down (sit yo' punk ass down)
So that means you ain't bigger than rapping (what else?)
So that means no more playing the backseats (what else?)
My spot is solidified if you ask me (what else?)
My name is identified as "that king"



Langston Hughes "I Too Am America"

I, too, sing America.

I am the darker brother,
They send me to eat in the kitchen
When company comes,
But I laugh,
And eat well,
And grow strong.

Tomorrow,
I'll be at the table
When company comes.
Nobody'll dare
Say to me,
"Eat in the kitchen."
Then.

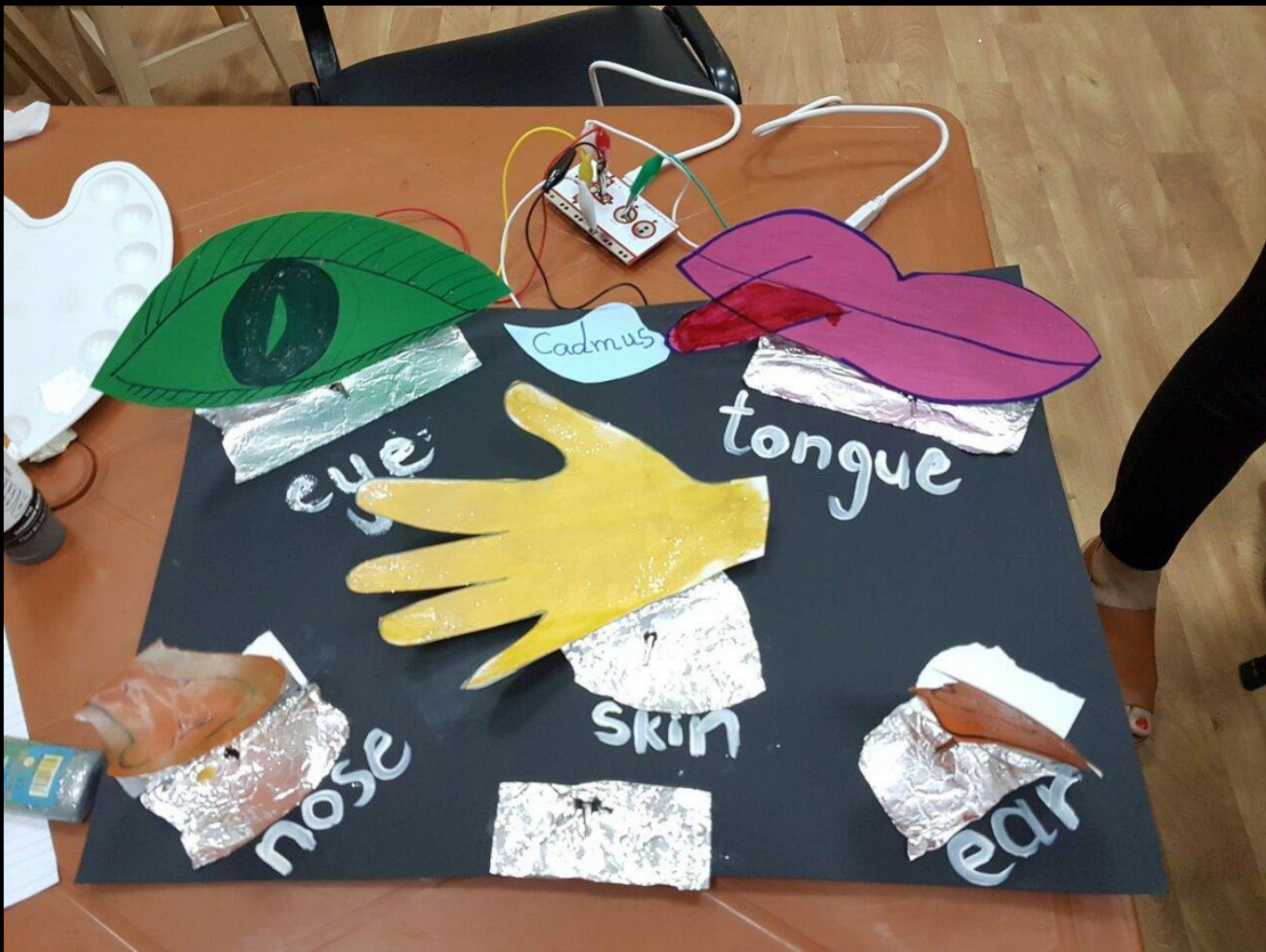
Besides,
They'll see how beautiful I am
And be ashamed—



Nathan McGuire "On Top"

Always strive for your best
Through rights and wrongs
Put yourself to the ultimate test
Everything has meaning
So keep your nose down
Even when you are steaming
Prove that you are still strong
When everything seems to go wrong
And you will be on top, lifelong





Cadmus

eye

tongue

skin

nose

ear



American Civil Rights Movement

1947

Jackie Robinson
breaks Major League Baseball's color barrier when he is signed to the Brooklyn Dodgers by Branch Rickey.



1954

Thurgood Marshall, *Brown v. Board of Education of Topeka, Kans.* declares that racial segregation in schools is unconstitutional, May 17.



1955

Rosa Parks refuses to give up her seat at the front of the "colored selection" of a bus to a white passenger (Dec. 1). In response to her arrest Montgomery's black community launch a successful year-long bus boycott. Montgomery's buses are desegregated on Dec. 21, 1956.



1963

Malcolm X, Early on, Malcolm X's oratory combined calls for racial independence with criticisms of mainstream civil rights leaders who cooperated with whites.
Don't Sit-In, Stand Up; On Black Nationalism



1963

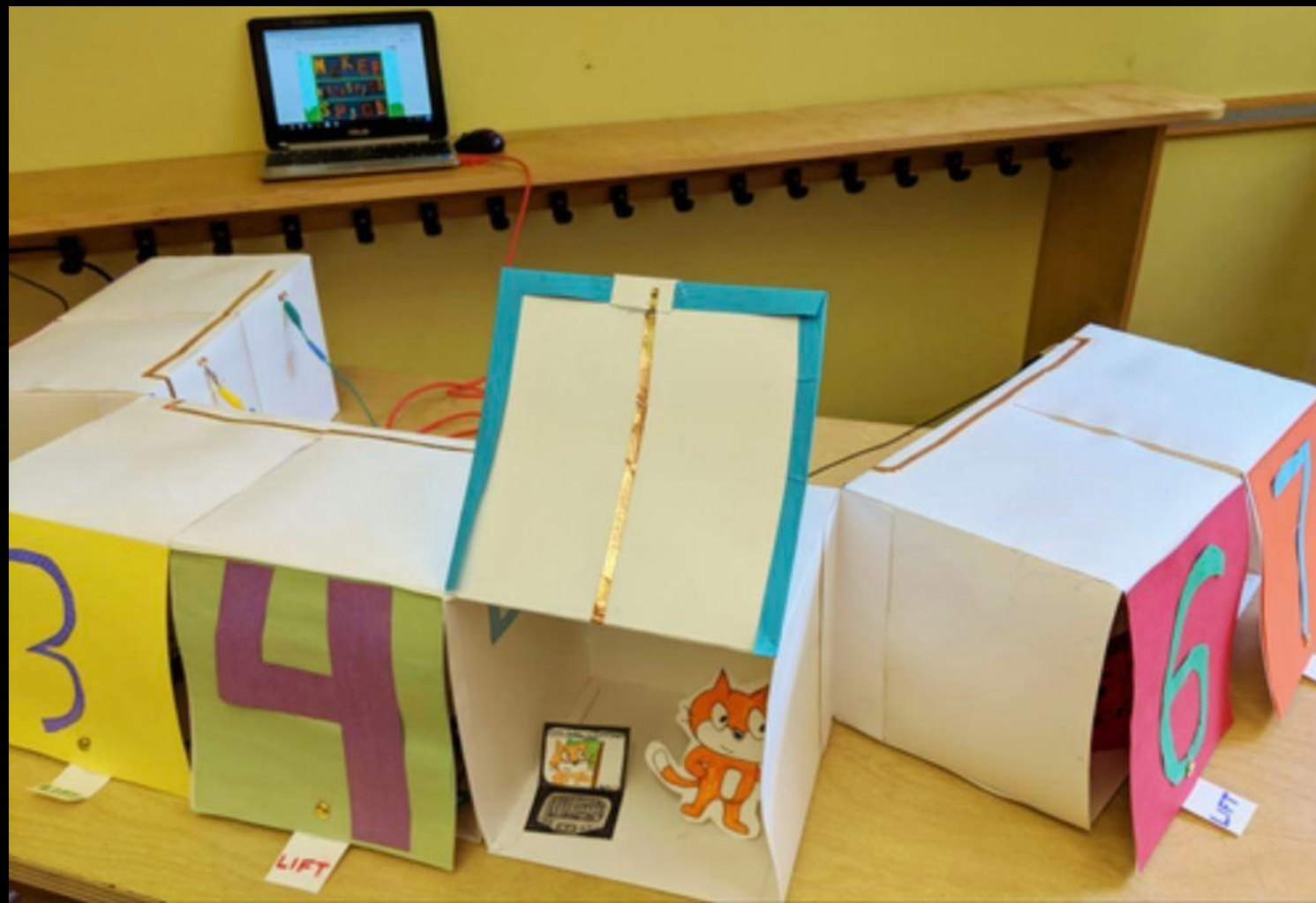
Bayard Rustin became a leading strategist of the civil rights movement from 1955 to 1968. He was the chief organizer of the 1963 **March on Washington for Jobs and Freedom**, which was headed by A. Philip Randolph, the leading African-American labor-union president and socialist.

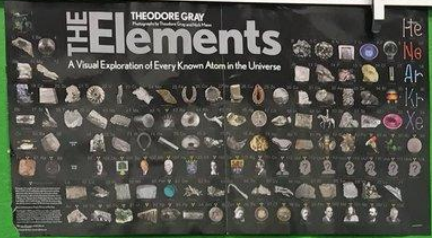


1963

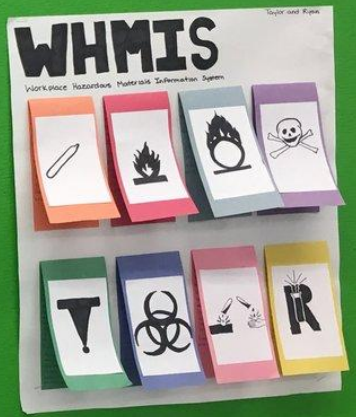
Martin Luther King, the March on Washington for Job and Freedom is attended about 250,000 people largest demonstration seen in the n capital. King his famous "Dream" sp march moment rights







WHMIS
Workplace Hazardous Materials Information System...







Scratch

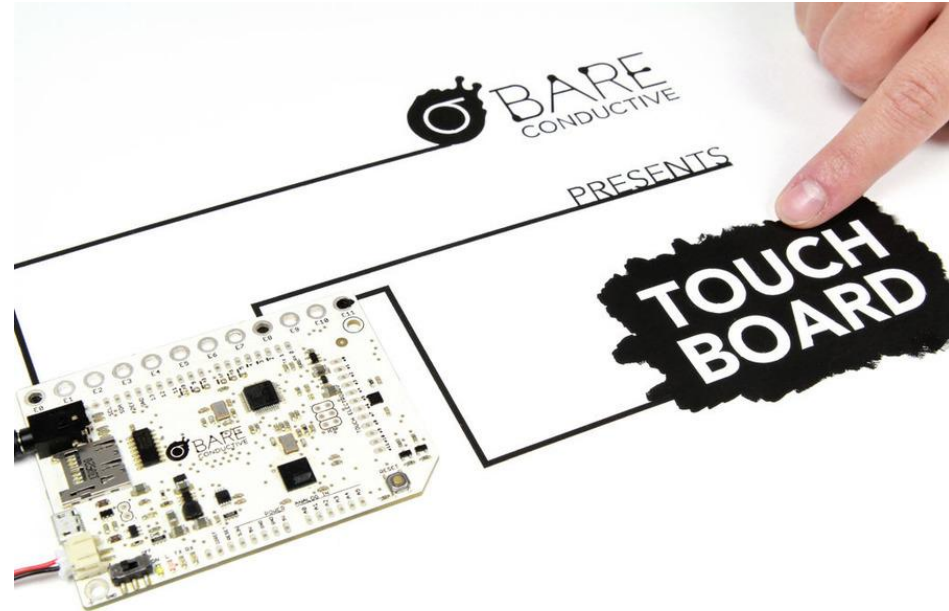
- Hannað af MIT og liggur á vefnum -> <https://scratch.mit.edu/>
- Ekki þörf á innskráningu nema að maður vilji vista kóða
- Hægt að leita uppi tilbúin verkefni sem eru opin
- Hægt að fara í “Remix” og prófa sig áfram
- Skipanir litakóðaðar og smella saman
- Hægt að velja á milli fjölmargra tungumála



SCRATCH

TouchBoard örtölva

- Þarf ekki að vera tengd við tölvu (innheldur minniskort)
- Getur stjórnað hljóði og ljósi, auk þess með skynjara (ofl?)
- Þarf ekki að tengjast “jörð”
- Nýtir Arduino forritunarmálið
- Kemur með tilbúnum kóða



A  B  C  D 

E  F  G  H 

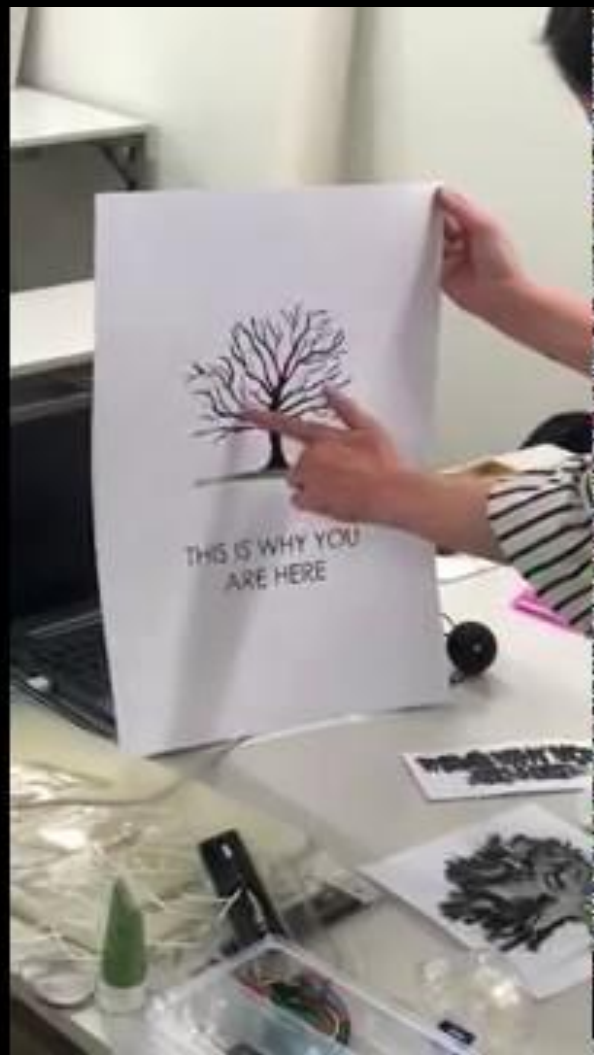
I  K  L  M

N P Q

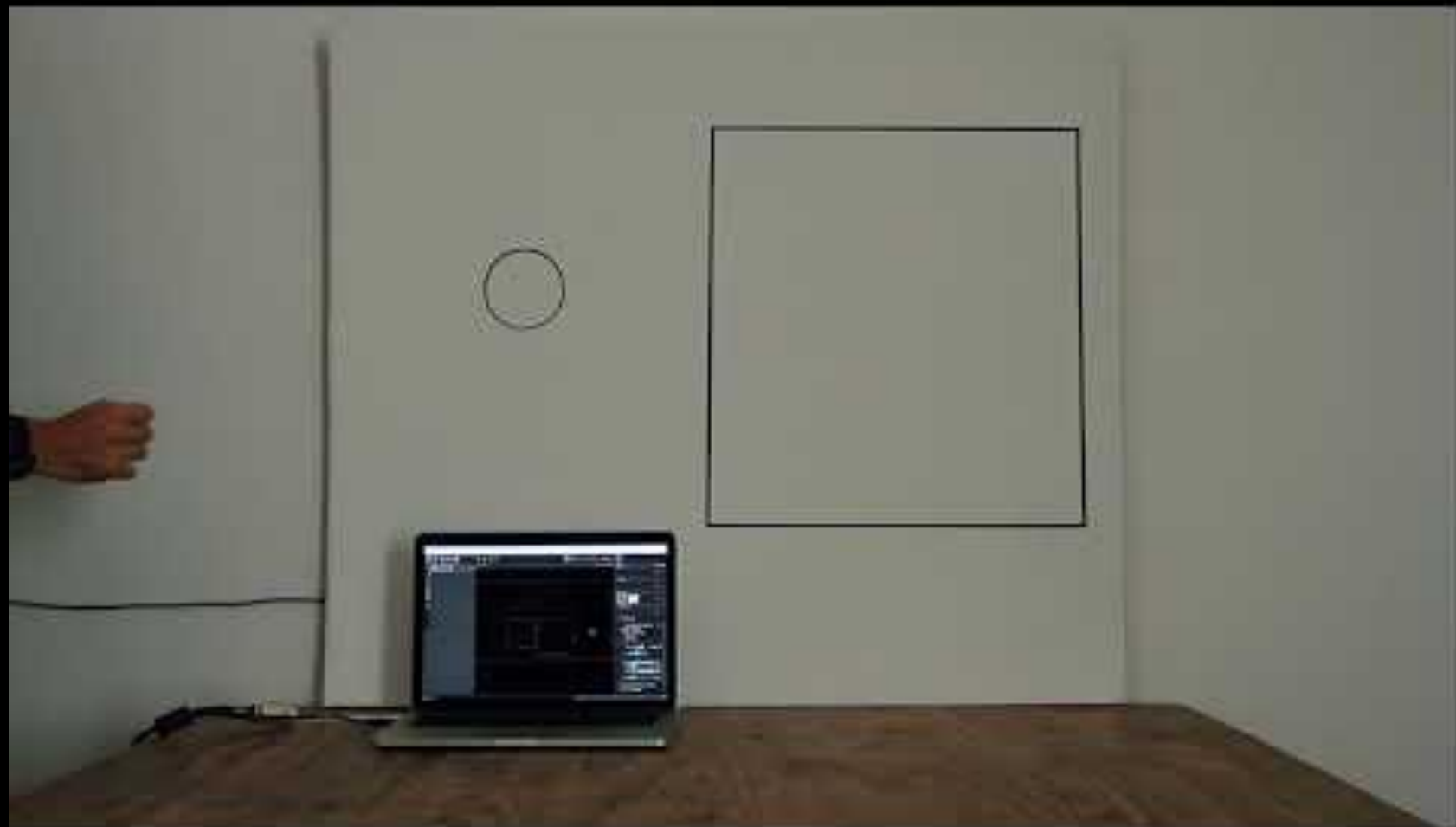
T U V











Verkefni dagsins

Stöð 1 - Stigvélin

Stöð 2 - Gagnvirkt veggspjald

Stöð 3 - Touch board