

```

1 #include <stdio.h>
2
3 int main() {
4     char hello[] = "Hello!";
5     char hello2[] = { 72, 101, 108, 108, 111, 33, 0 };
6
7     puts(hello);
8     puts(hello2);
9 }

```

```

$ gcc hello.c -o hello
$ ./hello
Hello!
Hello!

```


~~| | | | | | | | |
|--------|----|-----|-----|-----|-----|----|---|
| hello2 | 72 | 101 | 108 | 108 | 111 | 33 | 0 |
| hello | H | e | l | l | o | ! | |~~

this is
useful!

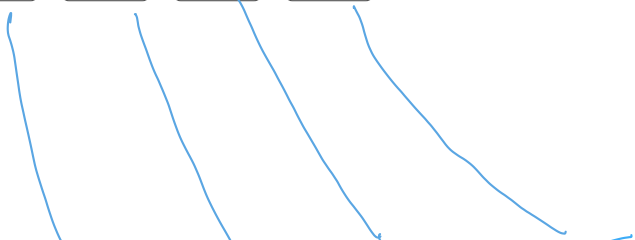
this is true

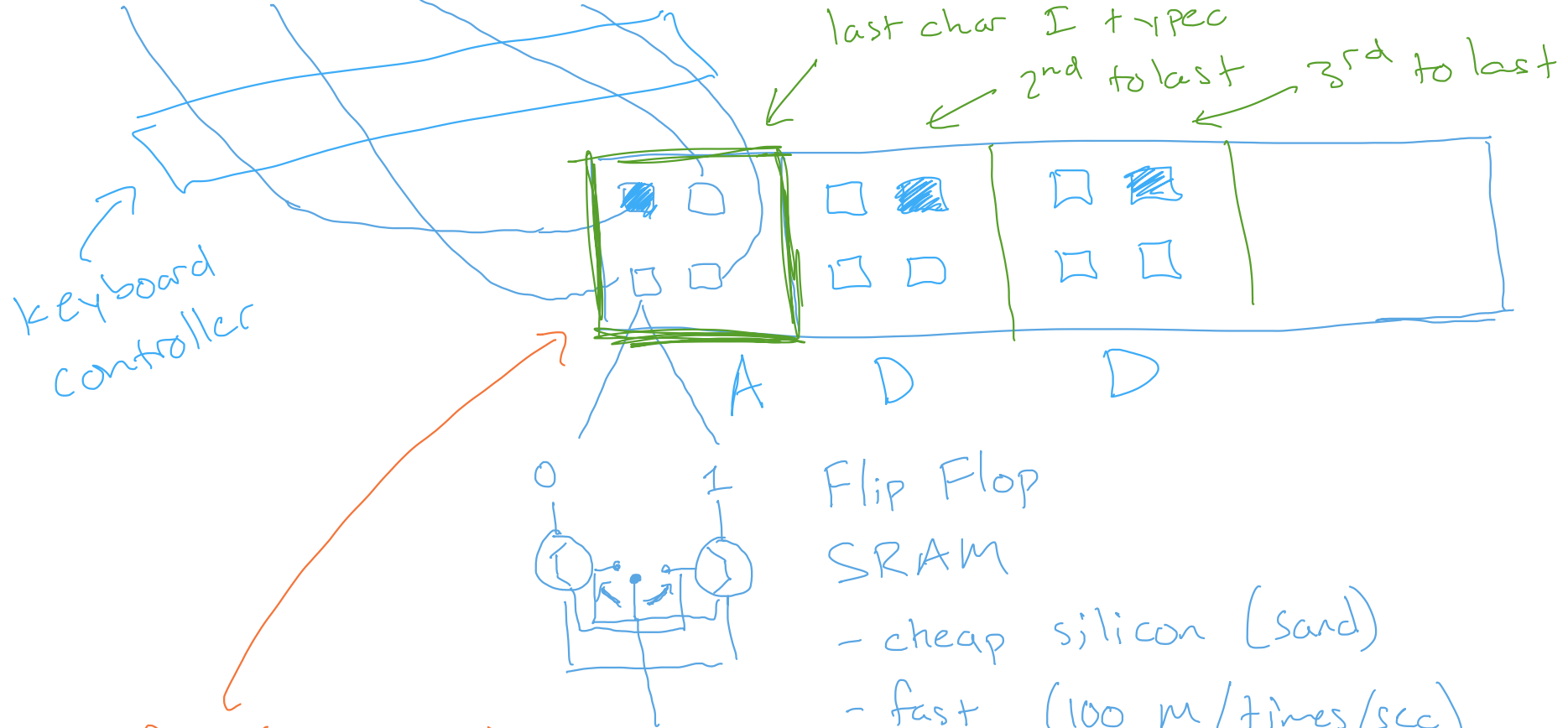
	"H" 72
hello2	□ <input checked="" type="checkbox"/> □ □
	<input checked="" type="checkbox"/> □ □ □
hello	□ <input checked="" type="checkbox"/> □ □
	<input checked="" type="checkbox"/> □ □ □

↙



A S D F





on a full (US-layout)

Keyboard, ~100 little

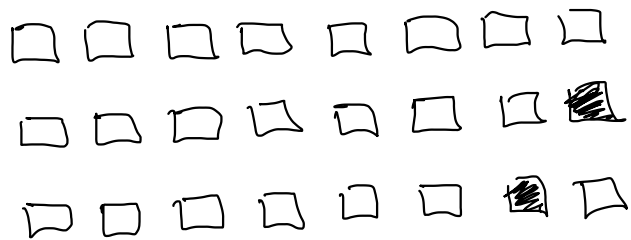
bit boxes

(1 or 0)

This means 100 bits per character
(ish)

Can we do better?

ASCII



0 0 0 0	0 0 0 0	0
0 0 0 0	0 0 0 1	1
0 0 0 0	0 0 1 0	2
0 0 0 0	0 0 1 1	3
0 0 0 0	0 1 0 0	4
0 0 0 0	0 1 0 1	5
0 0 0 0	0 1 1 0	6
0 0 0 0	0 1 1 1	7
		⋮

0 0 0 1 0 0 0 0 16

6^4 3^2
 ——— | 16 8 4 2 1
 0 1 0 0 0 0 1 1
 1*64 1*2 1*1

⋮
 65
 66
 67
 —————
 ⋮
 97
 98

'A'
 'B'
 'C'

 'a'
 'b'