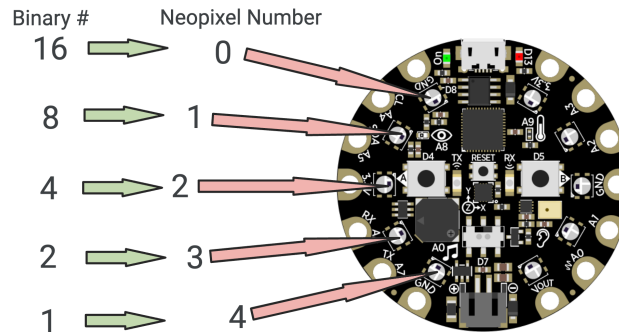


Student Handout

Program an Encrypted Message

We are going to use the Neopixels on the Circuit Playground Express to write out letters in binary once every second to send an encrypted message on top of your Ledger Project. We will use the Neopixels at 0, 1, 2, 3, and 4, as shown below.



For example, if you set A to the number 1 so that the cards read:

A =

0	0	0	0	1
16 card	8 card	4 card	2 card	1 card

= 00001,

then here is how you would code an A on the Circuit Playground Express:

Binary Card	CPX Pin	Current State	Code
16	0	OFF	Set pixel color at 0 to off
8	1	OFF	Set pixel color at 1 to off
4	2	OFF	Set pixel color at 2 to off
2	3	OFF	Set pixel color at 3 to off
1	4	ON	Set pixel color at 4 to on

We would then create a function called "A" like this:

```
function A
  set pixel color at 0 to off
  set pixel color at 1 to off
  set pixel color at 2 to off
  set pixel color at 3 to off
  set pixel color at 4 to on
  console log "A"
```

You are now going to encrypt a message (like your name) by modifying the starter code. But first, we need to plan the message in code.

