**SNES Controller Intercept v2**

**Background –** This controller intercept works by tapping into the LATCH, CLOCK, and DATA pins of the controller. The SNES controller works by having the latch pin drop to begin a controller status check ever 50/60Hz or so. The SNES then checks the DATA pin to determine the status of the first button (B). High (1) indicates not pressed and Low (0) indicates it is currently pressed The CLOCK pin raises and the DATA pin is checked for the next button. This process is repeated 16 times (even though there are only 12 buttons on a SNES controller) before the LATCH rises and the process starts again.

Button order:

|  |  |
| --- | --- |
| **CLOCK CYCLE** | **BUTTON** |
| 1 | B |
| 2 | Y |
| 3 | Select |
| 4 | Start |
| 5 | Up |
| 6 | Down |
| 7 | Left |
| 8 | Right |
| 9 | A |
| 10 | X |
| 11 | L |
| 12 | R |
| 13 | NA |
| 14 | NA |
| 15 | NA |
| 16 | NA |

The intercept works to follow the LATCH, CLOCK, and DATA pins and dump the DATA value into a 16 bit integer:

1111111111111111 (*no buttons are being pressed this cycle)*

NA … B

This integer is passed through the USB serial connection for visualization / logging

**Usage**

**BLUE =** Intercept has power, however there are no signals from the SNES (*only happens on start*)

**RED =** Intercept has power, SNES has power and intercept is working w/o capture

**GREEN =** Intercept is working and computer is showing/capturing the intercept.