

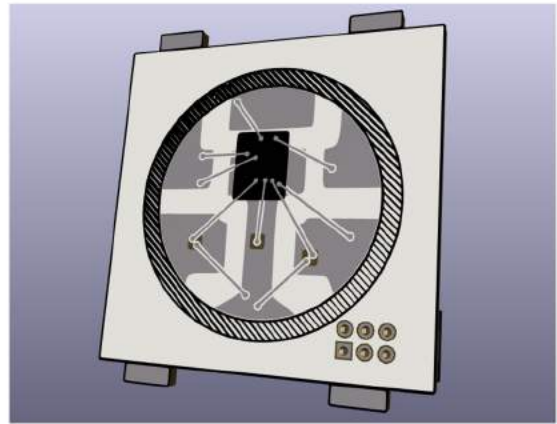
W220497AXS14

thing 0x01 - Shitty Pixel



Applications

- Conference Badge Decoration
- Bling
- Experimentation
- Education
- “Hacking”



Product Features

- 3 Individually controllable LEDs.
- At least 3 different animations
- Might be able to read commands sent from host badge*
- SAO v1.69bis compatible
- 3.3V!
- Secrets
- ICSP
- I2C
- RGB
- Countless other abbreviations!

General Description

The W220497AXS14 Shitty Pixel is a premium electronic conference badge add-on. It will enhance both the look and functionality of your favorite conference badge. By default it loops through an RGB rainbow cycle, but if sent the correct I2C commands, you can change the animations and intensity of the LEDs. More than just a blinky, this is a full on hackable platform begging to be experimented with.

I2C Commands

LED Control

7-bit address: 0x42

Data address: 0x00 (Mode: 0x00-0x??)
0x01 (Speed: 0x00-0xFF)
0x02 (Red Maximum: 0x00-0xFF)
0x03 (Green Maximum: 0x00-0xFF)
0x04 (Blue Maximum: 0x00-0xFF)
0x05 (Save/Reload State)

I2C Write Example:

0x42 0x00 0x00 = all pixels off
0x42 0x00 0x01 = all pixels on
0x42 0x02 0x00 = red pixel off.
0x42 0x04 0xAA = blue pixel at whatever intensity 0xAA is
0x42 0x00 0x03 = default mode
0x42 0x05 0x52 = reload saved state from EEPROM
0x42 0x05 0x57 = save current state to EEPROM

EEPROM Control

7-bit address: 0x50

Data address: 0x00 (DC Year)
0x01 (Maker ID)
0x02 (SAO Type ID)
0x03 (Arbitrary Data)

I2C Read Example:

0x50 0x00 = DC Year
0x50 0x01 = Maker ID
0x50 0x02 = SAO Type ID

*There was no coordination with any badge makers so there is no guarantee that any badge will be able to send these commands, you can trigger them using a bus pirate or a raspberry pi. There is a chance this will cause problems on the I2C bus when used with specific badges and/or SAOs.