W220497AXS15

thing 0x02 - Robot Banker

blinking things

Applications

• Conference Badge Decoration
• Bling
• Experimentation
• Education
• Hacking
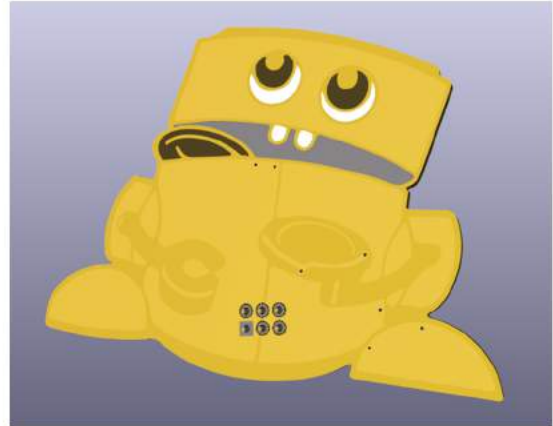
Product Features

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

General Description

The W220497AXS15 Robot Banker is a premium electronic conference badge add-on. It will enhance both the look and functionality of your favorite conference badge. By default it displays a chomp and blink animation, 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: 0x24
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:
0x24 0x00 0x00 = all pixels off
0x24 0x00 0x01 = all pixels on
0x24 0x02 0x00 = red pixel off.
0x24 0x04 0xAA = green pixel at whatever intensity 0xAA is
0x24 0x00 0x07 = default mode
0x24 0x05 0x52 = reload saved state from EEPROM
0x24 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
0x50 0x03 - Data

*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.