|  |
| --- |
| /\*Arduino Master I2C\*/ |
|  |  |
|  | **#include <Wire.h>** |
|  | **#define ledPin 9** |
|  |  |
|  | **byte rcvData;** |
|  | **int potValue;** |
|  |  |
|  | **void setup()** |
|  | **{** |
|  | **Wire.begin();** |
|  | **rcvData = 255;** |
|  | **pinMode(ledPin, OUTPUT);** |
|  | **}** |
|  |  |
|  | **void loop()** |
|  | **{** |
|  | **potValue = analogRead(A0);** |
|  | **potValue = map(potValue, 0, 1023, 0, 255);** |
|  |  |
|  | **Wire.beginTransmission(0x14);** |
|  | **Wire.write(potValue);** |
|  | **Wire.endTransmission();** |
|  |  |
|  | **Wire.requestFrom(0x14, 1);** |
|  | **if(Wire.available())** |
|  | **{** |
|  | **rcvData = Wire.read();** |
|  | **}** |
|  |  |
|  | **analogWrite(ledPin, rcvData);** |
|  | **}** |

I2C as Slave

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| /\*Arduino Slave I2C\*/ |
|  |  |
|  | #include <Wire.h> |
|  | #define ledPin 9 |
|  |  |
|  | byte rcvData; |
|  | int potValue; |
|  |  |
|  | void setup() |
|  | { |
|  | Wire.begin(0x14); |
|  | /\*Event Handlers\*/ |
|  | Wire.onReceive(DataReceive); |
|  | Wire.onRequest(DataRequest); |
|  |  |
|  | rcvData = 255; |
|  | pinMode(ledPin, OUTPUT); |
|  | } |
|  |  |
|  | void loop() |
|  | { |
|  | potValue = analogRead(A0); |
|  | potValue = map(potValue, 0, 1023, 0, 255); |
|  | analogWrite(ledPin, rcvData); |
|  | } |
|  |  |
|  | void DataReceive(int numBytes) |
|  | { |
|  | while(Wire.available()) |
|  | { |
|  | rcvData = Wire.read(); |
|  | } |
|  | } |
|  |  |
|  | void DataRequest() |
|  | { |
|  | Wire.write(potValue); |
|  | } |