# Adafruit I2C Sensor Addresses

To investigate the possibility of I2C address clashes a table was created displaying I2C sensors on the market and their addresses. Adafruit and SparkFun were chosen specifically as our client indicated any sensors used in schools would be used in a breakout board package and that these are the market leaders.

The table below and the i2c-addresses.pdf file show the range of I2C addresses used in their sensors. This data will be used to ensure the Mega:Bit does not clash with many, if any, other devices.

|  |  |  |
| --- | --- | --- |
| Sensor | I2C address | Webpage link |
| TCA9548A I2C Multiplexer | 0x70 (but can be adjusted from 0x70 to 0x77) | https://www.adafruit.com/product/2717 |
| Adafruit I2C Controlled + Keypad Shield Kit for 16x2 LCD | 0x20 | https://www.adafruit.com/product/715 |
| FLORA Accelerometer/Compass Sensor - LSM303 - v1.0 | 0x32 & 0x3C | https://www.adafruit.com/product/1247 |
| Flora Lux Sensor - TSL2561 Light Sensor - v1.0 | 0x39, 0x29, 0x49 | https://www.adafruit.com/product/1246 |
| MCP9808 High Accuracy I2C Temperature Sensor Breakout Board | Uses any I2C address from 0x18 thru 0x1F | https://www.adafruit.com/product/1782 |
| Adafruit HTU21D-F Temperature & Humidity Sensor Breakout Board | 0x40 | https://www.adafruit.com/product/1899 |
| Adafruit Blue&White 16x2 LCD+Keypad Kit for Raspberry Pi | 0x20 | https://www.adafruit.com/product/1115 |
| LCD Shield Kit w/ 16x2 Character Display - Only 2 pins used! - BLUE AND WHITE | 0x20 | https://www.adafruit.com/product/772 |
| RGB LCD Shield Kit w/ 16x2 Character Display - Only 2 pins used! - NEGATIVE DISPLAY | 0x20 | https://www.adafruit.com/product/714 |
| MaximIntegrated DS1307 – real time clock | 0x68 |  |
| Melexis MLX90614 – infrarred thermometer | 0x5A |  |
| FreeScale MMA8452Q 3-Axis Accelerometer | 0x1C, 0x1D |  |
| AKM AK9753 IR Sensor | 0x64H, 0x65H, 0x66H |  |
| AM2315 - Encased I2C Temperature/Humidity Sensor | 0x5C | https://www.adafruit.com/product/2651 |
| Adafruit BMP280 I2C or SPI Barometric Pressure & Altitude Sensor | SPI avoid i2c address collisions | https://www.adafruit.com/product/2651 |
| Adafruit Mini 8x8 LED Matrix w/I2C Backpack - Ultra Bright White | between 0x70-0x73 | https://www.adafruit.com/product/1080 |
| Adafruit Bicolor LED Square Pixel Matrix with I2C Backpack | between 0x70-0x77 | https://www.adafruit.com/product/902 |
| Adafruit 16-Channel 12-bit PWM/Servo Driver - I2C interface - PCA9685 | between 0x40-0x7F | https://www.adafruit.com/product/815 |
| Adafruit 16-Channel 12-bit PWM/Servo Shield - I2C interface | between 0x60-0x80 | https://www.adafruit.com/product/1411 |
| ADXL345 - Triple-Axis Accelerometer (+-2g/4g/8g/16g) w/ I2C/SPI | 0x53 | https://www.adafruit.com/product/1231 |