

LamaPLC: Pixart gesture recognition sensors / module with I²C communication

The PAJ7620U2 is a highly integrated gesture recognition sensor module by Pixart that can detect up to nine or more hand gestures and proximity via an I2C interface. It is commonly available on breakout boards for use with microcontrollers like Arduino or Raspberry Pi.

The sensor module integrates an optical lens and an infrared (IR) LED to function even in low-light or dark environments.

Key Features

Supported Gestures: 9 basic gestures: Up, Down, Left, Right, Forward, Backward, Clockwise (CW) circle, Counter-clockwise (CCW) circle, and Wave. Some modules support up to 13 gestures in a slower mode. Interface: I2C communication interface (up to 400 kbit/s), default address: 0x73
Operating Voltage: Typically 2.8V to 3.6V (sensor chip); breakout boards often have onboard voltage translators for 3.3V/5V compatibility. If using a basic breakout board without a voltage regulator, provide a 3.3V supply to the VCC pin. If using a module that specifies 5V compatibility (like the Waveshare or Gravity series), you can safely use either 3.3V or 5V. Detection Distance: Effective range of 5 cm to 15 cm, but can be up to 20 cm in some setups. Ambient Light Immunity: High immunity to ambient light, up to <100k Lux. Power Consumption: Designed for low-power operation, suitable for battery-operated devices. Array Size: 60×60 pixels Gesture speed: 60~600°/s in Normal Mode and 60~1200°/s in Gaming Mode

Arduino wiring

- SCL: A5
- GND: GND
- SDA: A4
- Vdd: 5V

Arduino code

```
sample
```

Example codes

none

I²C topics on lamaPLC

Page	Date	Tags
------	------	------

• lamaPLC Communication: 1-Wire	2025/05/31 21:56	1-wire , communication , bus , microlan , i2c , uart , usart , ds18b20
• lamaPLC Communication: I²C	2025/09/23 19:25	i2c , i c , smbus , philips , bus , communication , arduino
• LamaPLC: AHT20 / BMP280 Modul	2025/10/10 08:37	bmp280 , aht20 , adafruit , temperature , humidity , pressure , sensor , arduino , code , i2c
• LamaPLC: APDS - Avago ALS and proximity detection sensors with I²C communication	2026/02/10 16:02	avago , apds-9900 , apds-9930 , apds-9960 , als , proximity , detection , gesture recognition , gesture , i2c , communication , sensor , arduino , code
• LamaPLC: BMP/BME Bosch Temperature/Humidity/Pressure sensors with I²C communication	2026/02/08 21:45	bme280 , bme680 , bmp180 , bmp280 , bosch , temperature , humidity , pressure , sensor , arduino , i2c , communication
• LamaPLC: DHT Temperature /Humidity sensors with 1-wire / I²C communication	2026/02/08 21:45	dht11 , dht20 , dht22 , temperature , humidity , pressure , sensor , 1-wire , i2c , arduino , code
• LamaPLC: DPS Infineon Temperature/Pressure sensors with I2C communication	2026/02/08 21:45	dps310 , infineon , temperature , pressure , sensor , arduino , i2c , communication , code
• lamaPLC: Energy, power, current, and voltage	2025/05/31 21:32	i2c , i c , communication , arduino , energy , power , current , sensor , ina226
• LamaPLC: ENS ScioSense Multi-gas sensors with I²C communication	2026/02/08 21:45	ens160 , sciosense , gas-quality , i2c , communication , sensor , arduino , code
• lamaPLC: ESP32 / ESP8266	2025/11/21 23:07	esp8266 , esp32 , esp32-c2 , esp32-c3 , esp32-c5 , esp32-c6 , esp32-c61 , esp32-h2 , esp32-s2 , esp32-s3 , esp32-p4 , espressif systems , communication , ethernet , ip , wi-fi , thread , zigbee , matter , homekit , bluetooth , mqtt , adc , spi , uart , i2c , i2s , rmt , pwm , usb , usb otg , twai
• LamaPLC: Gas sensors	2023/07/01 15:29	gas , sensor , i2c , onewire , communication , mq-3 , mq-4 , mq-5 , mq-6 , mq-7 , mq-8 , mq-9 , mq-135 , gm-102b , gm-302b , gm-502b , gm-702b , alcohol , ch4 , natural gas , smoke , lng , co , co2 , lpg , h2 , iso-butane , nox , nh3 , benzene , town gas , formaldehyde , propane , humidity , temperature , voc , grv gas sens v2
• LamaPLC: GY-9250 MPU-9250/6500 9-axis Attitude Sensor Board	2026/02/03 20:22	ak8963 , gy-9250 , mpu-9250 , 9-axis , motion detection , magnetometer , communication , i c , i2c , spi
• LamaPLC: HDC Texas Instruments Temperature/humidity sensors with I²C communication	2026/02/08 21:45	hdc1080 , texas instruments , temperature , humidity , sensor , i2c , communication , arduino , code
• lamaPLC: HT16K33 display controller	2025/11/22 21:26	i2c , 7-segment display , display , ht16k33 , arduino

• LamaPLC: HTU TE Connectivity temperature/humidity sensors with I²C communication	2026/02/08 21:45	htu21 , te connectivity , temperature , humidity , i2c , communication , sensor , arduino , code
• LamaPLC: Humidity/temperature / air-pressure / gas / air-quality sensors and modules for Arduino	2025/09/23 19:08	sht20 , sht21 , sht25 , sht30 , sht31 , sht35 , sht40 , dht11 , dht20 , dht22 , am2302 , dps310 , bme280 , bme680 , bmp180 , bmp280 , si7021 , tc1047a , ds18b20 , htu21 , htu21d , gy21 , gy68 , gy bme280 , scd30 , modul , humidity , temperature , air-press , sensor , i2c , spi , modbus , onewire , communication
• lamaPLC: LCD 1602/2004	2025/10/09 21:58	communication , i2c , display , lcd , 1602 , 2004 , hd44780
• lamaPLC: MCP23017 / MCP23S17 16-Bit I/O Expander with Serial Interface	2025/12/04 00:34	communication , i2c , mcp23017 , mcp23s17 , spi , i o expander , serial , cjmcu-2317
• LamaPLC: Pixart gesture recognition sensors/module with I²C communication	2026/02/10 13:47	paj7620u2 , gy-paj7620 , pixart , gesture recognition , i2c , communication , sensor , arduino , code
• LamaPLC: SGP Sensirion Gas-sensors with I²C communication	2026/02/08 21:45	sgp30 , sgp40 , sgp41 , sensirion , gas-sensor , i2c , communication , sensor , arduino , code
• LamaPLC: SHT Sensirion Temperature/humidity sensor with I²C communication	2026/02/08 21:45	sht20 , sht21 , sht25 , sht30 , sht31 , sht35 , sht40 , gy21 , temperature , humidity , i2c , communication , sensor , arduino , code
• lamaPLC: Signal level converters	2025/11/22 19:12	pca9306 , i2c , voltage , level , converter
• lamaPLC: TCA9548A (HW617); Low-Voltage 8-Channel I²C Switch Module	2025/11/22 18:48	tca9548a , hw617 , i2c , switch , communication , expansion board , arduino
• lamaPLC: TM1637 7-segment display	2025/10/09 16:03	i2c , 7-segment display , display , tm1637 , arduino
• LamaPLC: TOFnnnC STMicroelectronics Time-of-Flight (ToF) sensors with I²C communication	2026/02/09 16:05	tof050c , vl6180 , tof200c , vl53l0x , tof400c , vl53l1x , stmicroelectronics , time-of-flight , tof , i2c , communication , sensor , arduino , code
• LamaPLC: VL53Lnn STMicroelectronics time-of-flight (ToF) laser-ranging sensors with I²C communication	2026/02/09 15:35	vl53l0x , vl53l1x , vl53l0 1xv2 , gy-530 , time-of-flight , tof , laser-ranging , i2c , communication , sensor , arduino , code
• LamaPLC: VL6180X STMicroelectronics Time-of-Flight (ToF) sensor with I²C communication	2026/02/09 15:48	vl6180x , stmicroelectronics , time-of-flight , tof , i2c , communication , sensor , arduino , code
• SSH1106/SSD1306 OLED Display with I²C communication	2026/02/06 16:40	i2c , oled , display , ssd1306 , sh1106 , ssh1106 , arduino , cmos

[PAJ7620U2](#), [GY-PAJ7620](#), [Pixart](#), [gesture recognition](#), [i2c](#), [communication](#), [sensor](#), [arduino](#), [code](#)

This page has been accessed for: Today: 1, Until now: 5

From:

<http://lamaplc.com/> - **lamaPLC**

Permanent link:

<http://lamaplc.com/doku.php?id=sensor:paj&rev=1770731249>

Last update: **2026/02/10 13:47**

