

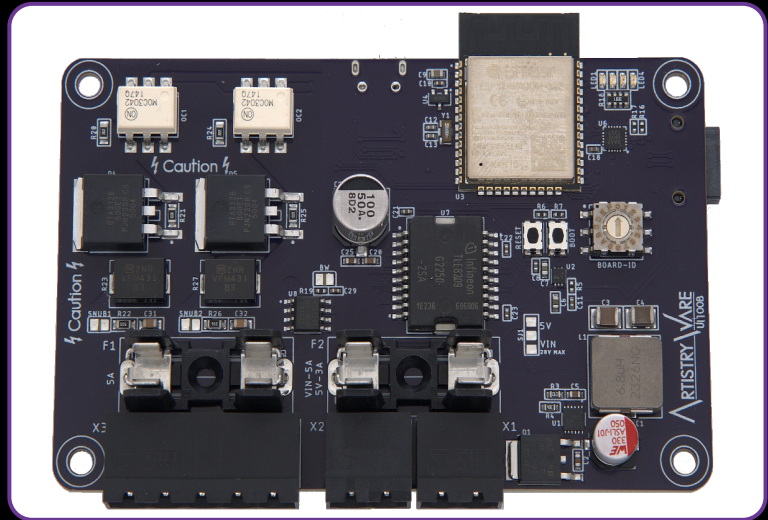
Universal Interface UI200

Simplifying Automation for Interactive Designs

Product Sheet

Key Features

- Espressif ESP32-C5 N8R8
 - Up to 240MHz
 - 8MB Flash and 8M RAM
 - 5GHz & 2.4GHz Wi-Fi 6
 - Bluetooth 5 & IEEE 802.15.4
 - u.FL or on-board Antenna
 - USB-C programming interface
- DC Input voltage range of 9V to 32V
- Rotary DIP switch for addressability
- Individual AC and DC glass fuses
- SX1508 8-Channel IO Expander
 - 4 on-board LEDs
 - Rotary DIP input
- AC Load Control BTA-12
 - Dual opto-isolated TRIACs
 - Selectable snubber circuits
 - Maximum total output current of 5A
 - On-board current sensing TMCS1101
- DC Load Control TLE8209-2
 - Automotive grade motor bridge
 - Single Full Bridge or Dual Half Bridge
 - Selectable Full Input Voltage or 5VDC
 - Maximum total output current of 5A
- Board Dimensions: 3.75" x 2.4"
- Expansion Boards Available:
 - Prototype Board
 - 8 Ch 5-24VDC Sourcing Input
 - 8 Ch 5-24VDC Sinking Output
 - 6 Ch RC Servo Controller
 - Dual RGB LED Driver



Product Overview

The UI200 is an Internet of Things (IoT) control board that provides functions not normally found on typical IoT controllers. Powered by the ESP32-C5, the industry's first RISC-V MCU that supports 2.4 and 5 GHz dual-band Wi-Fi 6, along with Bluetooth 5 (LE) and IEEE 802.15.4 (Zigbee, Thread) connectivity.

The UI200 can control two separate AC loads (or a reversible AC motor) with isolated TRIAC switches, and use the automotive grade DC H-Bridge to drive a reversible motor up to 28V. An 8-channel GPIO expander drives four on-board LEDs for indication and a 16-position selector switch to uniquely identify the controller.

Plug in our UE series expansion modules to employ additional functions, such as custom circuits, higher voltage inputs and outputs, hobby servo control, and an RGB LED Driver.

Product Application

The UI200 can be used to directly interface AC and DC loads for any IoT project. With a full Bluetooth stack, it can interface with mobile and tablet applications or act as a beacon. It can function as a web server, client, or even an access point with its Wi-Fi function.

With a range of UE100 expansion modules, it can provide additional functionality and control options. Mix and match multiple expansion modules to suit your requirements.

Easily integrate with your custom programming using our VS Code C++ component developed using the ESP-IDF extension.

About ArtistryWare

ArtistryWare Inc. brings together decades of expertise in various entertainment venues from cinemas and television to theme parks and interactive experiences. We are highly committed to providing feature rich interactive experiences from hardware to software and for all types of venues and platforms.