

Pin Usage on Prototyping System for Teensy 4.1

Baseboard		Color Key	PWM	Digital Audio	Serial	Digital			Analog	I2C	SPI	CAN Bus	Power	Baseboard	
Power	Ground					GND		VIN						VIN	5V Power
ESP32 Serial TX2 (1) J6	TX2	PWM	CRX2	CS1	RX1		0	GND						GND	Ground
ESP32 Serial RX2 (1) J5	RX2	PWM	CTX2	MISO1	TX1		1	3.3V						Not Connected	
XPT2046 TS (2) J4	T_IRQ	PWM	OUT2				2	23 A9		CRX1	MCLK1		PWM		
		PWM	LRCLK2				3	22 A8		CTX1			PWM		
		PWM	BCLK2				4	21 A7		RX5	BCLK1				
		PWM	IN2				5	20 A6		TX5	LRCLK1				
		PWM	OUT1D				6	19 A5			SCL		PWM		
		PWM	OUT1A	RX2			7	18 A4			SDA		PWM		
		PWM	IN1	TX2			8	17 A3		TX4	SDA1				
		PWM	OUT1C				9	16 A2		RX4	SCL1				
		PWM	MQSR	CS			10	15 A1		RX3	SPDIF IN		PWM		
Touchscreen / TFT	MOSI	PWM	CTX1	MOSI			11	14 A0		TX3	SPDIF OUT		PWM		
Touchscreen / TFT	MISO	PWM	MQSL	MISO			12	13 LED		SCK			PWM	SCK	Touchscreen / TFT
Not Connected						3.3V		GND						GND	Ground
		PWM	SCL2	TX6	A10		24	41 A17						TS_CS	XPT2046 Touchscreen CS
		PWM	SDA2	RX6	A11		25	40 A16						TFT_CS	ILI9341 TFT Display CS
				MOSI1	A12		26	39 A15		MISO1	OUT1A				
				SCK1	A13		27	38 A14		CS1	IN1				
		PWM		RX7			28	37		CS			PWM		
		PWM		TX7			29	36		CS			PWM		
CAN Bus In (3) J8	CRX3		CRX3				30	35		TX8				TX8	RS485 Out
CAN Bus Out	CTX3		CTX3				31	34		RX8				RX8	RS485 In (4) J7
			OUT1B				32	33			MCLK2		PWM	In/OUT	RS485 direction select

- (1)** ESP32 link uses Serial 1 on pins 0 and 1. J5 and J6 can be removed to repurpose these pins
- (2)** T_IRQ from theXPT2046 Touch Display comes in on pin 2. Jumper can be removed to repurpose this pin
- (3)** The CAN3 bus uses pins 30 and 31. Since receiver is always active, J8 can be removed to repurpose these pins
- (4)** Pins 33-35 are used for the RS485 interface. Since receiver is always active, J7 can be removed to repurpose these pins.