

## CSCE Embedded Hardware

### Milestone-4

#### Pin Mapping Table:

MC Pin #	GPIO Name	Function	Connected To (J1 Pin #)	Purpose / Justification
14	3.3V	Power Output	J1 Pin 1	Powers external devices like sensors or OLED
13	D0 (PA13)	Digital I/O	J1 Pin 2	Used for LED status or custom GPIO
12	D1 (PA12)	I2C SCL	J1 Pin 3	Clock line for I2C OLED display
11	D2 (PA11)	I2C SDA	J1 Pin 4	Data line for I2C OLED display
10	D3 (PA10)	UART RX / PWM	J1 Pin 5	UART RX from camera/scanner
9	D4 (PA09)	UART TX / PWM	J1 Pin 6	UART TX to camera/scanner
8	D5 (PA08)	PWM / Digital I/O	J1 Pin 7	Controls camera power or other logic
7	D6 (PA07)	Digital I/O	J1 Pin 8	General purpose GPIO
6	D7 (PA06)	Digital I/O	J1 Pin 9	Controls external indicators (e.g., buzzer)
5	D8 (PA05)	Digital I/O	J1 Pin 10	Reserved for expansion
4	D9 (PA04)	Analog Input	J1 Pin 11	Sensor interface (future use)
3	D10 (PA02)	Analog Input	J1 Pin 12	Sensor interface (future use)
1	—	NC	—	Not connected
2	—	NC	—	Not connected