



swap pins between throttle cut and weight data

Got it! Here's your **updated ESP32 pinout mapping** with the **Throttle Cut** now using **GPIO0** and the **HX711 Weight Sensor Data (DT)** now using **GPIO22**:

Updated Pinout Mapping

Component	ESP32 Pin	Function	Purpose
TFT LCD - VCC	3.3V	Power	Powers the display
TFT LCD - GND	GND	Ground	Common ground connection
TFT LCD - CS	GPIO5	Chip Select	Activates the TFT module
TFT LCD - DC	GPIO4	Data/Command	Selects between command and data transmission
TFT LCD - RESET	GPIO16	Reset	Resets the TFT display
TFT LCD - WR	GPIO17	Write Strobe	Signals a write operation to the TFT
TFT LCD - RD	GPIO21	Read Strobe	Signals a read operation from the TFT
TFT LCD - D0 to D7	GPIO12, GPIO13, GPIO26, GPIO25, GPIO27, GPIO14, GPIO33, GPIO32	Parallel Data Bus	Sends image data to the TFT
Touchscreen - T_CLK	GPIO18	SPI Clock (Shared with SD)	Synchronizes touchscreen data transfer
Touchscreen - T_CS	GPIO15	Touch Chip Select	Activates touchscreen module
Touchscreen - T_DIN	GPIO23	SPI Data In (Shared with SD)	Receives data from the touchscreen
Touchscreen - T_DO	GPIO19	SPI Data Out (Shared with SD)	Sends data to the touchscreen
Touchscreen - T_IRQ	GPIO36	Touch Interrupt	Detects touch events
SD Card - SD_SCK	GPIO18	SPI Clock (Shared with Touchscreen)	Synchronizes SD card data transfer
SD Card - SD_MISO	GPIO19	SPI MISO (Shared with Touchscreen)	Sends data from SD card to ESP32
SD Card - SD_MOSI	GPIO23	SPI MOSI (Shared with Touchscreen)	Sends data from ESP32 to SD card
SD Card - SD_CS	GPIO2	Chip Select (Unique)	Activates SD card module
Voltage Sensor	GPIO34	Analog Input (ADC1)	Reads voltage measurements
Current Sensor	GPIO35	Analog Input (ADC1)	Reads current measurements
Throttle Control	GPIO39	Analog Input (ADC1)	Reads throttle position
Throttle Cut	GPIO0	Digital Input (Unique)	Emergency stop signal
ESC Output (PWM)	GPIO3	PWM Output (Unique)	Controls motor speed via ESC
HX711 - DT	GPIO22	Weight Sensor Data	Weight measurement input
HX711 - SCK	GPIO1	Weight Sensor Clock	Weight sensor clock

