

Arduino Component Connection Table

Component	Pin on Component	Connected To (Arduino/ Breadboard)	Notes
HDJD-S822 (RGB Sensor)	VDD	Breadboard + (5V)	Use as VCC
	GND	Breadboard – (GND)	
	Analog Output or I2C	Custom – A0 or I2C pins	Based on your sensor's interface
HX711 (Amplifier)	DT	D8	Data pin
	SCK	D9	Clock pin
	VCC	Breadboard + (5V)	
	GND	Breadboard – (GND)	
Load Cell x2 (3 wires each)	Red (Excitation +)	HX711 E+	Join both red wires
	Black (Excitation –)	HX711 E–	Join both black wires
	White	Together → HX711 A–	
	Green	Together → HX711 A+	
Servo Motor (SG90 or Dagu)	Orange (Signal)	D10	Control signal
	Red (VCC)	Breadboard + (5V)	Can use external 5V if needed
	Brown (GND)	Breadboard – (GND)	
Piezo Buzzer	+ve (Red)	D11	Signal
	–ve (Black)	Breadboard – (GND)	
OLED Display (I2C)	VCC	Breadboard + (5V)	

	GND	Breadboard – (GND)	
	SDA	A4	I2C data
	SCL	A5	I2C clock
MLX90614 (Temp Sensor)	VDD	Breadboard + (5V)	
	VSS (GND)	Breadboard – (GND)	
	SDA	A4	Shares with OLED
	SCL	A5	Shares with OLED
HC-SR04 (Ultrasonic)	VCC	Breadboard + (5V)	
	GND	Breadboard – (GND)	
	TRIG	D6	Trigger pin
	ECHO	D7	Echo pin

Breadboard Power Summary

Breadboard Rail	Connect To	Purpose
Red Power Rail (+)	Arduino 5V	Shared 5V for all modules
Blue Power Rail (–)	Arduino GND	Shared Ground for all