## **20251021** Ramps **1.6** Pinout.xlsx

| Order    | Ramps 1.6 Pin | AtMega pin | Conexión                      | Arduino Pin  | Conector                | Comentarios                                    | Comments                             |
|----------|---------------|------------|-------------------------------|--------------|-------------------------|--|--------------------------------------|
| 8        | D0            | PE0        |                               | RXD0         | AUX-1                   |  |                                      |
| 9        | D1            | PE1        |                               | TXD0         | AUX-1                   |  | _                                    |
| 2        | D10           | PB4        | Ventilador de capa            |              | Bornas                  | 5 44   | Layer fan                            |
| 7        | D11<br>D14    | PB5        | Neopixel Leds<br>Y-           | TVD2         | Servos                  | Servo #1                                       | Neopixel Leds strip                  |
| 45<br>46 | D14           | PJ1<br>PJ0 | Y+<br>Y+                      | TXD3<br>TXD3 | LIMITS<br>LIMITS        | Y- Stop pin<br>Sensor de filamento inteligente | Y- Stop pin<br>Smart filament sensor |
| 25       | D16           | PH1        | 17                            | TXD2         | AUX-4                   | Sensor de mamento inteligente                  | Smart mament sensor                  |
| 26       | D17           | PH0        |                               | RXD2         | AUX-4                   |  |                                      |
| 47       | D18           | PD3        | Z-                            | TXD1         | LIMITS                  | Z- Stop pin                                    | Z- Stop pin                          |
| 48       | D19           | PD2        | Z+                            | RXD1         | LIMITS                  |  |                                      |
| 44       | D2            | PE4        | X+                            |              | LIMITS                  | Sensor de filamento                            | Filament runout sensor               |
| 42       | D20           | PD1        |                               | SDA          | I2C                     |  |                                      |
| 41       | D21           | PD0        |                               | SCL          | I2C                     |  |                                      |
| 27       | D23           | PA1        |                               |              | AUX-4                   |  |                                      |
| 66       | D24           | PA2        | enable_pin                    |              | extruder                | Señales motor Extruder                         | Extruder motor signals               |
| 28       | D25           | PA3        |                               |              | AUX-4                   |  |                                      |
| 64       | D26           | PA4        | step_pin                      |              | extruder                | Señales motor Extruder                         | Extruder motor signals               |
| 29       | D27           | PA5        | 1                             |              | AUX-4                   | 5 ~ 1  | F                                    |
| 65       | D28           | PA6        | dir_pin                       |              | extruder                | Señales motor Extruder                         | Extruder motor signals               |
| 30       | D29<br>D3     | PA7        | Х-                            |              | AUX-4<br>LIMITS         | V Stan nin                                     | V Chammin                            |
| 43<br>63 | D30           | PE5<br>PC7 | x-<br>enable_pin              |              | stepper_z1 (Former EXT1 | X- Stop pin<br>Señales motor 71                | X- Stop pin Z1 axis motor signals    |
| 31       | D31           | PC6        | enable_pin                    |              | AUX-4                   | Senales motor 21                               | ZI axis illutul signais              |
| 40       | D31           | PC5        |                               |              | AUX-4                   |  |                                      |
| 32       | D33           | PC4        |                               |              | AUX-4                   |  |                                      |
| 62       | D34           | PC3        | dir_pin                       |              | stepper z1 (Former EXT1 | Señales motor Z1                               | Z1 axis motor signals                |
| 33       | D35           | PC2        |                               |              | AUX-4                   |  |                                      |
| 61       | D36           | PC1        | step_pin                      |              | stepper_z1 (Former EXT1 | Señales motor Z1                               | Z1 axis motor signals                |
| 34       | D37           | PC0        |                               |              | AUX-4                   |  |                                      |
| 54       | D38           | PD7        | enable_pin                    |              | stepper_x               | Señales motor X                                | X axis motor signals                 |
| 35       | D39           | PG2        |                               | BLE          | AUX-4                   |  |                                      |
| 4        | D4            | PG5        | BlTouch Servo                 |              | Servos                  | Servo #4                                       | BlTouch Servo                        |
| 13       | D40           | PG1        | Tira led monocolor            |              | AUX-2                   | Necesita mosfet exterior                       | Led strip                            |
| 36       | D41           | PG0        |                               | WR           | AUX-4                   |  |                                      |
| 14       | D42           | PL7        |                               |              | AUX-2                   |  |                                      |
| 37       | D43           | PL6        |                               |              | AUX-4                   |  |                                      |
| 18       | D44           | PL5        |                               |              | AUX-2                   |  |                                      |
| 38<br>58 | D45<br>D46    | PL4<br>PL3 | cton nin                      |              | AUX-4                   | Señales motor Z                                | 7 avis mater signals                 |
| 39       | D47           | PL2        | step_pin                      |              | stepper_z<br>AUX-4      | Seriales Illotor 2                             | Z axis motor signals                 |
| 59       | D48           | PL1        | dir_pin                       |              | stepper z               | Señales motor Z                                | Z axis motor signals                 |
| 24       | D49           | PLO        | ш_рш                          |              | AUX-3 / SPI             | Schales motor 2                                | Z dais motor signals                 |
| 5        | D5            | PE3        | Salida servo libre            | A1           | Servos                  | Servo #3                                       | Free servo out                       |
| 21       | D50           | PB3        |                               | MISO         | AUX-3 / SPI             |  |                                      |
| 23       | D51           | PB2        |                               | MOSI         | AUX-3 / SPI             |  |                                      |
| 20       | D52           | PB1        |                               | SCK          | AUX-3 / SPI             |  |                                      |
| 22       | D53           | PB0        |                               | SS           | AUX-3 / SPI             |  |                                      |
| 52       | D54           | PF0        | step_pin                      | A0           | stepper_x               | Señales motor X                                | X axis motor signals                 |
| 53       | D55           | PF1        | dir_pin                       | A1           | stepper_x               | Señales motor X                                | X axis motor signals                 |
| 57       | D56           | PF2        | enable_pin                    | A2           | stepper_y               | Señales motor Y                                | Y axis motor signals                 |
| 11       | D57           | PF3        | BITouch Contacto              | A3           | AUX-1                   | Cables negro y blanco del BlTouch              | BlTouch output                       |
| 10       | D58<br>D59    | PF4<br>PF5 | Vantiladar autrus ara         | A4<br>A5     | AUX-1                   | Necesita maefet autoriar                       | Hot end fan                          |
| 16<br>6  | D59           | PH3        | Ventilador extrusora<br>Servo | MJ           | AUX-2<br>Servos         | Necesita mosfet exterior<br>Servo #2           | Servo                                |
| 55       | D60           | PF6        | step_pin                      | A6           | stepper_y               | Señales motor Y                                | Y axis motor signals                 |
| 56       | D61           | PF7        | dir_pin                       | A7           | stepper_y               | Señales motor Y                                | Y axis motor signals                 |
| 60       | D62           | PKO        | enable_pin                    | A8           | stepper_z               | Señales motor Z                                | Z axis motor signals                 |
| 12       | D63           | PK1        | Zumbador                      | A9           | AUX-2                   | Necesita mosfet exterior                       | Beeper                               |
| 17       | D64           | PK2        |                               | A10          | AUX-2                   |  | i i                                  |
| 15       | D65           | PK3        |                               | A11          | AUX-2                   |  |                                      |
| 19       | D66           | PK4        |                               | A12          | AUX-2                   |  |                                      |
| 51       | D67           | PK5        | Nozzle sensor                 | A13          | TERMISTORS              | Sensor temperatura boquilla                    | Nozzle temp. Sensor                  |
| 50       | D68           | PK6        | Sensor temp. libre            | A14          | TERMISTORS              | Sensor temperatura libre                       | Unused temp. Sensor                  |
| 49       | D69           | PK7        | Bed sensor                    | A15          | TERMISTORS              | Sensor temperatura cama caliente               | Bed temp. Sensor                     |
| 3        | D8            | PH5        | Calentamiento cama            |              | Bornas                  |  | Bed heating                          |
| 1        | D9            | PH6        | Calentamiento boquilla        | I            | Bornas                  |  | Nozzle heating                       |