

## Power Consumption

5V, 500mA  
24V, 77mA



## LEDs

### Green LEDs Indicators

Power Indicator LEDs	Check if Board is powered with all necessary voltages
Start Trigger LED	Lights up when the Coin-Sensor (or an auxiliary sensor) is triggered
Relais LED	Corresponding LED lights up when either the Power Supply Relais or the solenoid at the coin slot is triggered

### Red LED "Main Controller" Status and Error Messages

off	everything ok, waiting for start ( <code>_IDLE</code> )
blinks fast (100ms)	ESP32 waits for teensy to reset ( <code>_WAIT_FOR_TEENSY</code> )
blinks slow (1s)	Show is Playing ( <code>_PLAY</code> )
blinks very slow (2s)	Stepper Controller is in test-mode ( <code>_HARDWARE_TEST</code> )

### Red LED "Media Controller" Status and Error Messages

off	everything ok, waiting for start ( <code>_IDLE</code> )
blinks slow (1s)	Show is Playing ( <code>_PLAY</code> )
blink codes with two seconds pause between blink-code:	
1 blink	Initialization of SD-Card failed
2 blinks	Failed to read files from SD-Card
3 blinks	Failed to write files to SD-Card

### Red LED "Stepper Controller" Status and Error Messages

off	everything ok ( <code>_IDLE</code> )
blinks fast (100ms)	Resetting Motors ( <code>_RESET_WAIT_FOR_MOTOR_INIT</code> )
blinks slow (1s)	Show is Playing ( <code>_PLAY</code> )
blinks very slow (2s)	Stepper Controller is in test-mode ( <code>_HARDWARE_TEST</code> )
blink codes with two seconds pause between blink-code:	
1 blink	Initialization of SD-Card failed
2 blinks	Failed to read files from SD-Card

## Dip Switch

1	auto-repeat on / off
2	keep 24V Power Supply always on
3	
4	buzzer on / off

## Buttons

A	start show
B	stop show

## Buzzer (Status and Error Messages)

### RJ45 Terminals

5	6	7	8	13	14	15	16
1	2	3	4	9	10	11	12

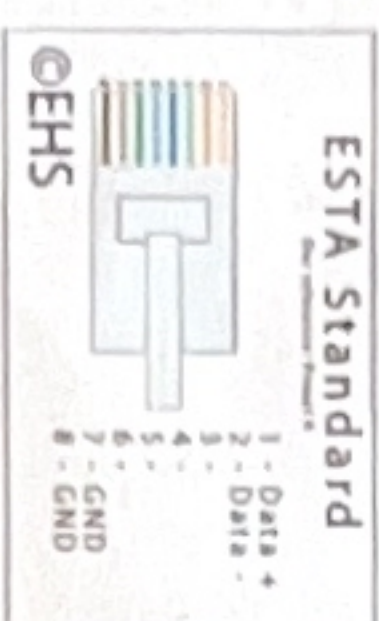
### DMX Transmitter

- on Port 16 at the RJ45 terminal
- via the three-pin jumper labeled "DMX TX"
- via the green terminal on the blue MAX485 board

Port 16 at the RJ45-Terminal follows the ESTA Standard

connection:

- 1 Data + (A)
- 2 Data - (B)
- 3-8 GND



## Test Mode

Don't use the TestMode when all motors are attached at the installation. Motors will run without stopping at the end-switches!

- 1) Hold down button A while powering on OR hold down button A and press RST on Main Controller.  
Only the MainController is now in TestMode:
  - Three red LEDs (MainController, Relais Coinslot, Relais Power) toggle every two seconds and a short "be-beep" sounds from the speaker.
  - When a serial monitor connection is established with the ESP32, the states of the buttons are presented there
- 2) When in TestMode, press:
  - Button A to start Media Controller (plays the show)
  - Button B to start Stepper Controller in TestMode (all motors drive slowly and stop when the endswitch is pressed)