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Arduino-main-unit.md

The Arduino main unit consists of an Arduino Mega 2560, two LTC2465 Digital-to-analog converter, a DSUB25 plug and a 4pin plug.
It is powered either through USB or a 7-12V power supply and connected via USB to the computer.

Arduino pin functions

Arduino Pin 23,25,27,29,31,33,35,37 ==> On/Off

Arduino Pin 22,24,26,28,30,32,34,36 ==> Frequency modulation (FM) On/Off

Arduino Pin 4,5,6,7,8,9,10,11 (all PWM) ==> Intensity

Arduino Pin A14,A15 (analog pins) ==> Analog Input/Digital Output

DSUB25 plug pinlayout

DSUB25 Pin 1-8 <=> Arduino Pin 23,25,27,29,31,33,35,37

DSUB25 Pin 9-16 <=> Arduino Pin 4,5,6,7,8,9,10,11 (all PWM)

DSUB25 Pin 17-25 <=> Arduino Pin 22,24,26,28,30,32,34,36, GND

4pin plug pinlayout

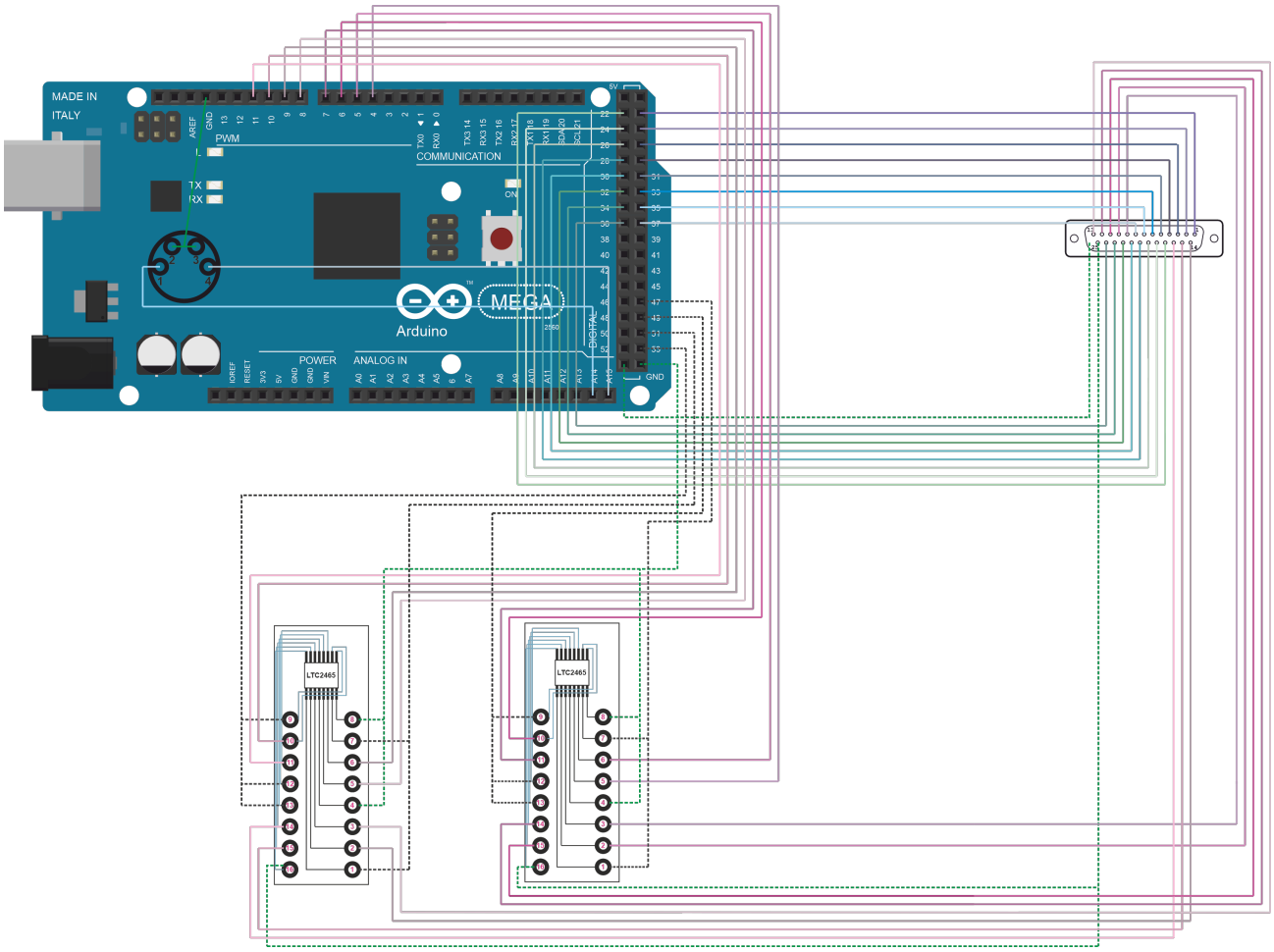
4pin Pin 1 <=> Arduino Pin A14

4pin Pin 2-3 <=> Arduino Pin GND

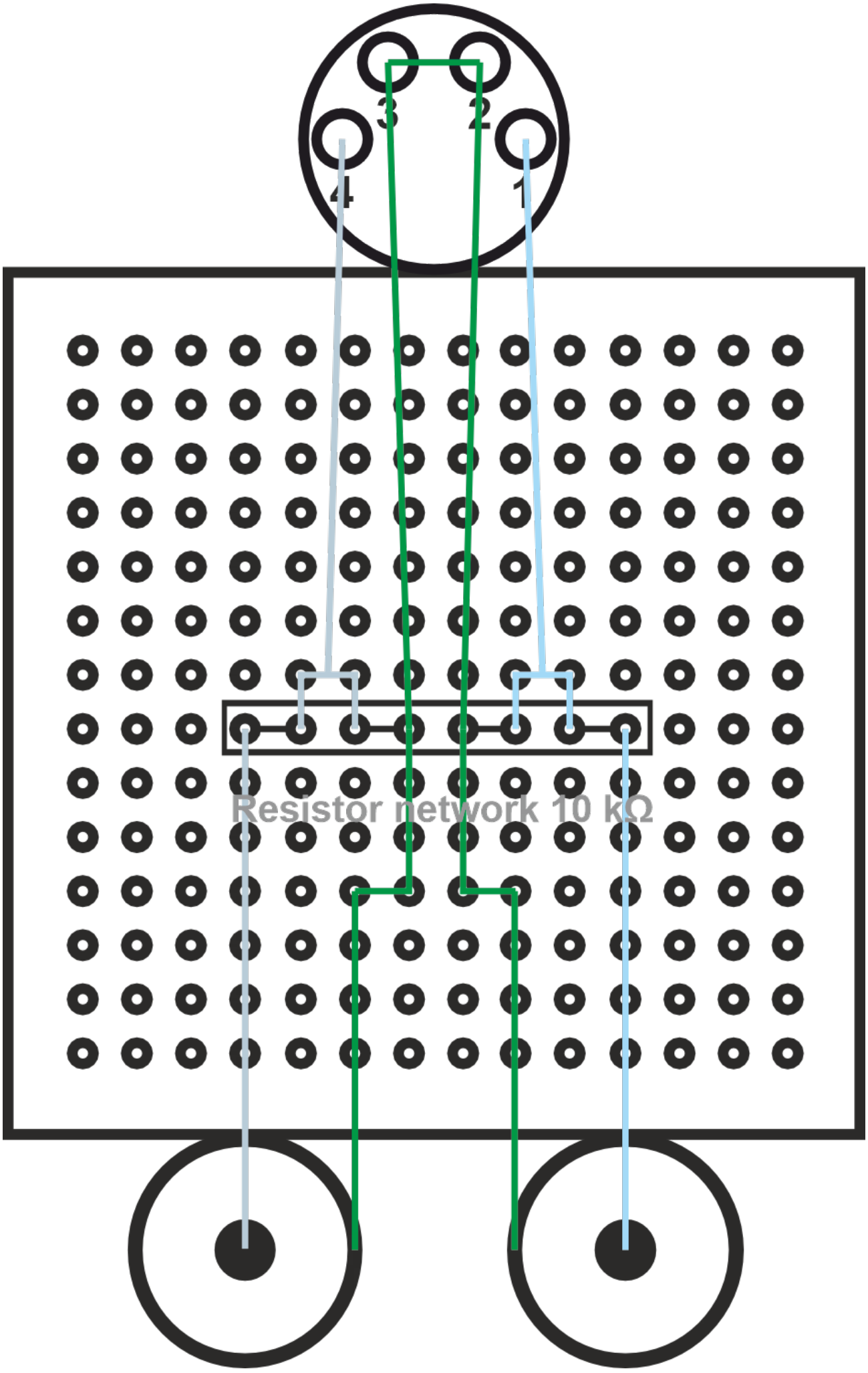
4pin Pin 4 <=> Arduino Pin A15

Circuit-diagrams.md

Main Unit



Polychrome ICU Adapter

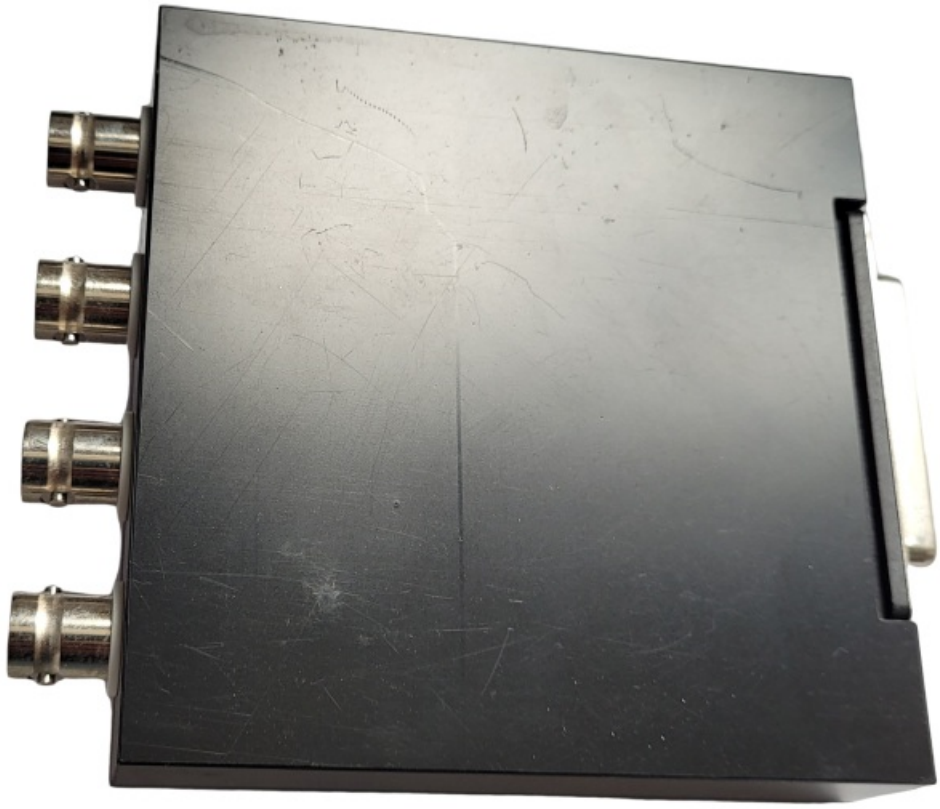

3
2
4
1
Resistor network 10 kΩ

Extension-units.md

Polychrome ICU Adapter

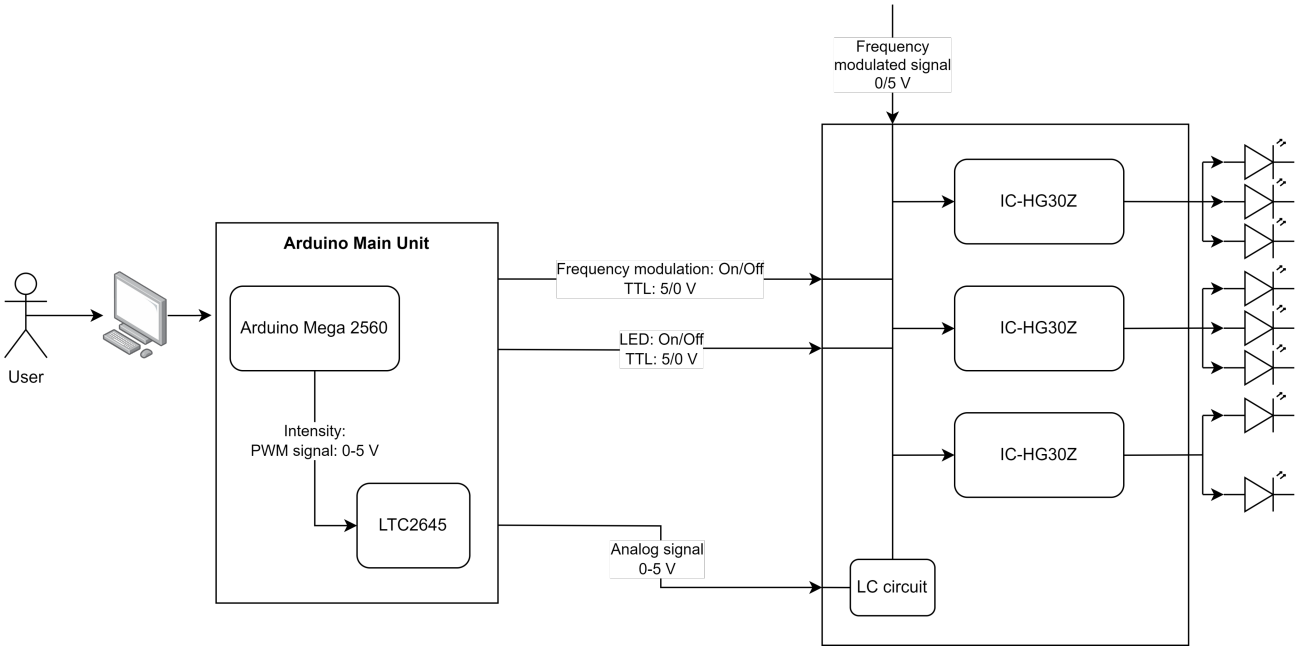
The Polychrome ICU Adapter consists of two BNC input connectors, a 50% voltage divider and a 4-pin output connector. It allows a Polychrome Imaging Control Unit (ICU) to be connected to the analog inputs of the main unit.

D-SUB BNC Adapter



The D-SUB to BNC Adapter connects 4 BNC sockets to PIN 1-4 of the D-SUB connector. This makes it easy to use the main unit to control/trigger other hardware via a 5V digital signal.

Home.md


Frequency
modulated signal
0/5 V
IC-HG30Z
IC-HG30Z
IC-HG30Z
Arduino Main Unit
Frequency modulation: On/Off
TTL: 5/0 V
LED: On/Off
TTL: 5/0 V
Arduino Mega 2560
Intensity:
PWM signal: 0-5 V
LTC2645
Analog signal
0-5 V
LC circuit
User