C1 Reader Technical Diagram

Refer to Schematic for Further Information

Aug 21 2020

KEY
Ground Pin (GND)
ESP32
RTC
SD Card
Power (Entire Board)
Power (When Cut in Half)
Enable Power (When Cut in Half)
C11 Connector Pins
SPI & GIOPs & Extra Chip Pins
External LEDs Jumpers

To be used for testing or an additional feature

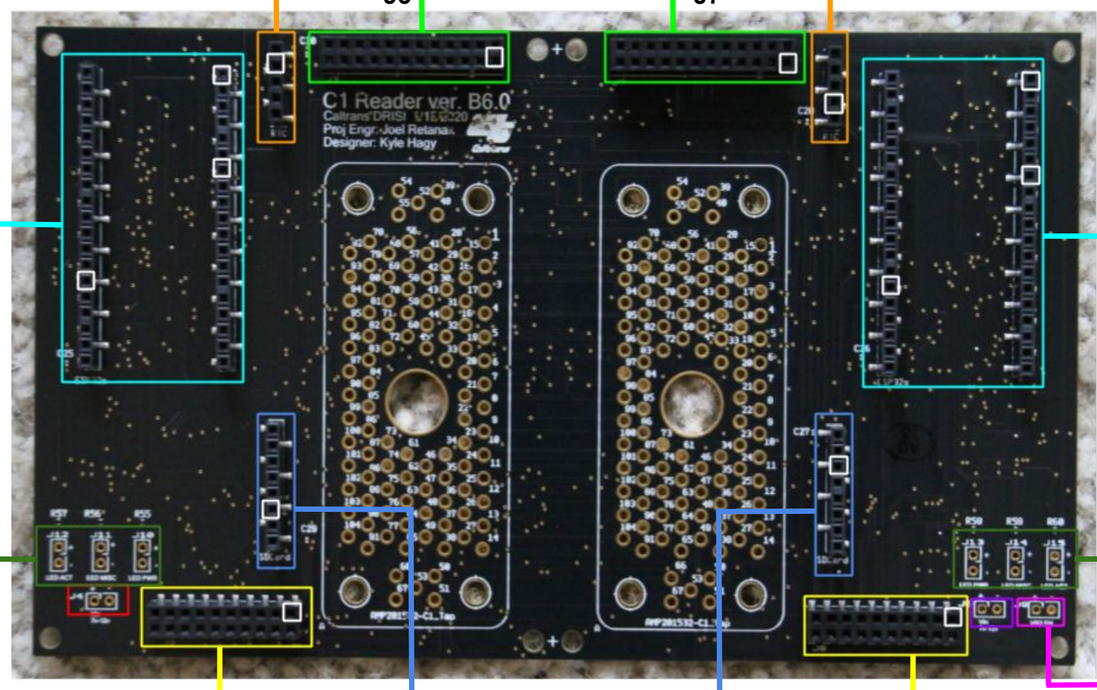
CS1	GIOP6
CS2	GIOP7
CS3	GIOP8
CS4	GIOP15
CS5	GIOP2
CS6	GIOP0
SCLK	GIOP4
SDI	GIOP16
SDO	SMI-23 (Last Pin on Chip 1)
GIOP9	SM2-23 (Last Pin on Chip 2)
GIOP10	SM3-23 (Last Pin on Chip 3)
GND	SM4-23 (Last Pin on Chip 4)

J3

SDA
SCL
SQW
GND
5V (Power)

5V (Power)
GND
SQW
SCL
SDA

J7



3.3V	**GND**
RST	MOSI
GIOP36	SCL
GIOP39	GIOP1
GIOP34	GIOP3
GIOP35	SDA
GIOP32 (MISC)	**GND**
GIOP33 (ACT)	MISO
GIOP25	SCK
GIOP26	GIOP5
GIOP27	GIOP17
GIOP14	GIOP16
GIOP12	GIOP4
GND	GIOP0
GIOP13	GIOP2
GIOP9	GIOP15
GIOP10	GIOP8
GIOP11	GIOP7
5V (Power)	GIOP6

3.3V	**GND**
RST	MOSI
GIOP36	SCL
GIOP39	GIOP1
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GIOP32 (MISC)	**GND**
GIOP33 (ACT)	MISO
GIOP25	SCK
GIOP26	GIOP5
GIOP27	GIOP17
GIOP14	GIOP16
GIOP12	GIOP4
GND	GIOP0
GIOP13	GIOP2
GIOP9	GIOP15
GIOP10	GIOP8
GIOP11	GIOP7
5V (Power)	GIOP6

Example of how to use jumpers below

J10-J12

Example of how to use jumpers below

J13-J15

SM5-IN4	SM5-IN5
SM5-IN6	SM5-IN7
SM5-IN8	SM5-IN9
SM5-IN10	SM5-IN11
SM5-IN12	SM5-IN13
SM5-IN14	SM5-IN15
SM5-IN16	SM5-IN17
SM5-IN18	SM5-IN19
SM5-IN20	SM5-IN21
SM5-IN22	**GND**

J2

CD
CS (CS6)
DI (SDI)
DO (SDO)
CLK
GND
3V
5V (Power)

5V (Power)
3V
GND
CLK
DO (SDO)
DI (SDI)
CS (CS6)
CD

SM5-IN4	SM5-IN5
SM5-IN6	SM5-IN7
SM5-IN8	SM5-IN9
SM5-IN10	SM5-IN11
SM5-IN12	SM5-IN13
SM5-IN14	SM5-IN15
SM5-IN16	SM5-IN17
SM5-IN18	SM5-IN19
SM5-IN20	SM5-IN21
SM5-IN22	**GND**

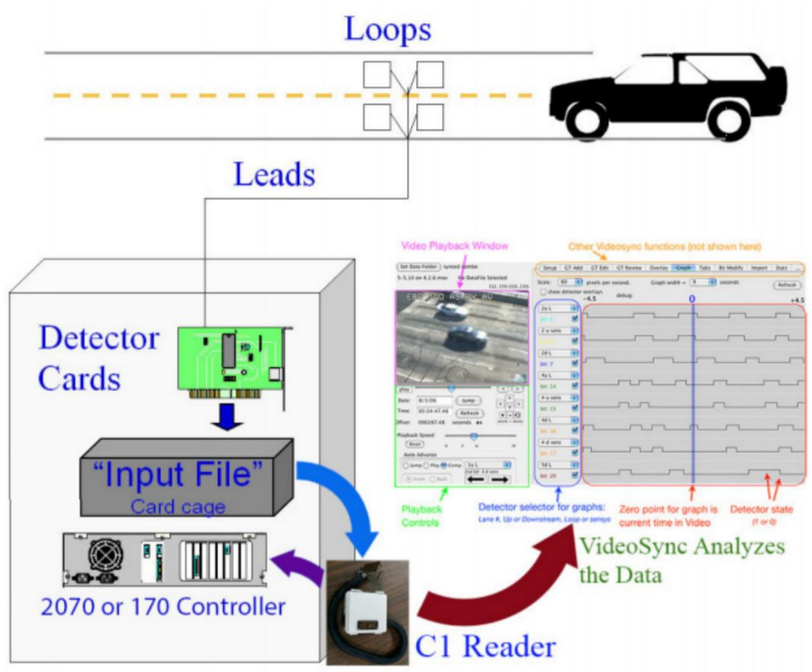
J8

Extra pins for the C11 Connector
These pins are from the Maxim Chip 5

When board is cut in half
J9 must have a wire bridging both holes for the board receive power through J6/Vin

J9

Example Use of C1 Reader in Field

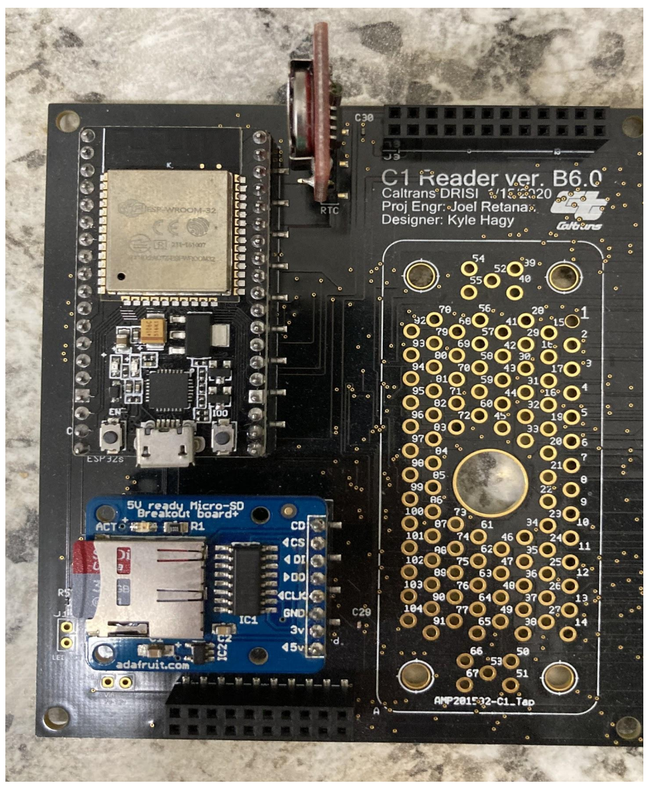


The C1 Reader collects and stores the sensor data
This Data is later uploaded to VideoSync for analysis

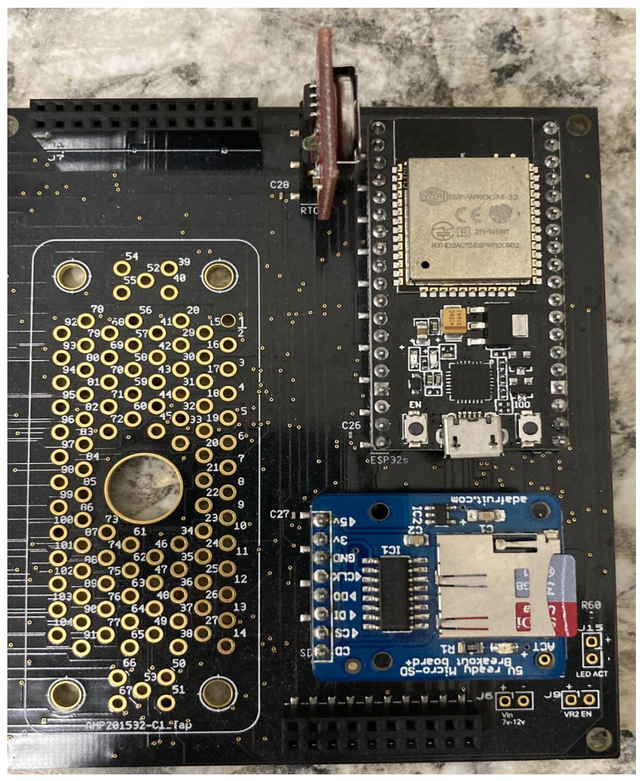
Example of Basic Hook-Up

(ESP 32 / SD Card / RTC)

LEFT

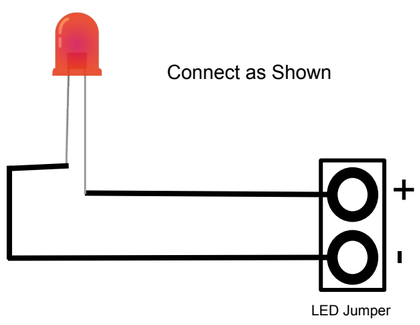


RIGHT



Example of how to use LED Jumpers

(J10-J12, J13-J15)



- The 6 total jumpers are to be used for external LEDs on the C1 Reader box for visibility on the Power/MISC/Activity lines.
- MISC/ACT can be turned on with the ESP32 respective pins (GIOP32/GIOP33)
- The on-board LEDS on the back work even if no external LED is connected.

C1 Connecter

Features 104 pins to be soldered to the middle jumpers (Labeled AMP201532-C1_Tap)

C11 Connecter

Features 20 extra pins to be wired and soldered to the J2/J8 headers