Caveatron Hardware Version Code Description

2020-10-24

Software Versions: 2.05 – Current

This is an 11 digit alphanumeric code that defines the specific hardware components inside the Caveatron allowing for different hardware modules to be used with the same software. The table and list below describe what each digit of the code means and provides valid values for each parameter. Note that this list is only valid with the software versions listed above.

Character #	Value Range	Description
0	A-Z	Hardware Revision
1	0-9	Display
2	0-9	Font/Graphics Storage
3	0-9	Laser Rangefinder
4	0-9	Compass
5	0-9	IMU/Gyro
6	0-9	Battery
7	0-9	Battery Gauge
8	0-9	Piezo Buzzer
9	0-9	Future expansion
10	-	
11	0-9	LIDAR Module

Example: B212112110-3

Hardware Revision

A = Arduino Due Processor Board (not supported starting with version 2.0)

B = Teensy Processor Boards (currently 3.6 and 3.5 only)

Display

1 = Coldtears 3.5” 480x320 LCD – Normal (For use with displays with non-inverted colors. This includes both some newer models that use the UTFT_GHL library and older models with the CTE library)

2 = Updated Coldtears 3.5” 480x320 LCD – Inverted (For use with some displays that have inverted colors in the default state that use the UTFT_GHL library. This setting corrects the colors.)

3 = Coldtears 4.0” 480x320 LCD (Uses UTFT_CTE library)

4 = BuyDisplay 3.5” 480x320 LCD module, 16-bit, with resistive touchscreen

Font/Graphic Storage

1 = UTFT_CTE font library

2 = UTFT_GHL font library (not supported starting with version 2.0)

Laser Rangefinder

1 = Uni-T UT390B early version with verbose output

2 = Uni-T UT390B normal version

3 = JRT 100 m Laser distance module

Compass

1 = Pololu LSM303DLM, LSM303DLHC, LSM303D, AltIMU-10 v3, AltIMU-10 v4, or MinIMU-9 v3

Gyro/IMU
0 = None
1 = Pololu L3GD20, L3GD20H, AltIMU-10 v3, AltIMU-10 v4, or MinIMU-9 v3

Battery
1 = 4400 mAh 3.7V Li-Ion
2 = 5200 mAh 3.7V Li-Ion

Battery Gauge
0 = None
1 = MAX17043 LiPo Fuel Gauge
2 = Sparkfun LiPo Battery Manager (not supported starting with version 2.0)

Piezo Buzzer
0 = None
1 = 1-3V directly driven Piezo Buzzer

LIDAR
1 = XV LIDAR (4m) (not supported starting with version 2.0)
2 = SWEEP LIDAR (25m)
3 = RPLIDAR A1M8 (12m) and A2M6 (18m)