Arduino4HASCO Format

1. A stream consists of a series of bits, grouped as four 8-bits words (32 bits in total)
2. A stream must start with a `0xc1a0c1a0` (header) marker
3. After the header, the number of events is stated: `0xa0a00000 + hex(number of events)`
4. For each event:
    1. `Event ID number: 0xe0000000 + hex(event ID)`
    2. Timestamp as the time in seconds since “the epoch” (01/01/1970) as a floating point number.
    3. `0xd000000 +` 1000 times the Photodiode voltage (unsigned integer)
    4. `0xd1000000 +` 1000 times the Thermistor temperature (Celsius, unsigned integer)
5. A stream must end with a `0xb1eb1e0f` (footer) marker
6. Finally, the checksum represented by the XOR of all the words contained in the stream *except the checksum*. The XOR of *all* the words contained in the stream (*including* the checksum) must be zero.

A stream containing 5 events looks like this:

```
0xc1a0c1a0      header
0xa0a00005      number of events (5)
0xe0000000      event #1
0x53cfc699      timestamp
0xd0000c26      1000 * photodiode voltage
0xd1006b4e      1000 * thermistor temperature
0xe0000001      event #2
0x53cfc699
0xd0000c62
0xd1006ab8
0xe0000002      event #3
0x53cfc699
0xd0000c08
0xd10069a0
0xe0000003      event #4
0x53cfc699
0xd00000c8
0xd10069b4
0xe0000004      event #5
0x53cfc699
0xd0000082
0xd10068b0
0xb1eb1e0f      footer
0x62247c63      checksum
```