

The steps towards a basic CanSat

Going through all this is necessary.

Communication

How to communicate

- Hardware
 - The process
- Understanding
 - Packaging the information

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- Hardware
 - Output pin
 - Electrical signals
 - Input pin
- Understanding
 - Protocol

Communication

The 2 main communication systems

- USB
- Transceiver

Both use UART

- Universal asynchronous receiver/transmitter

Communication

Protocol

- ASCII (American Standard Code for Information Interchange)
- Binary code -> readable text
- 0100100001100101011011000110110001101111001000
000111011101101111011100100110110001100100
- Hello world

Communication

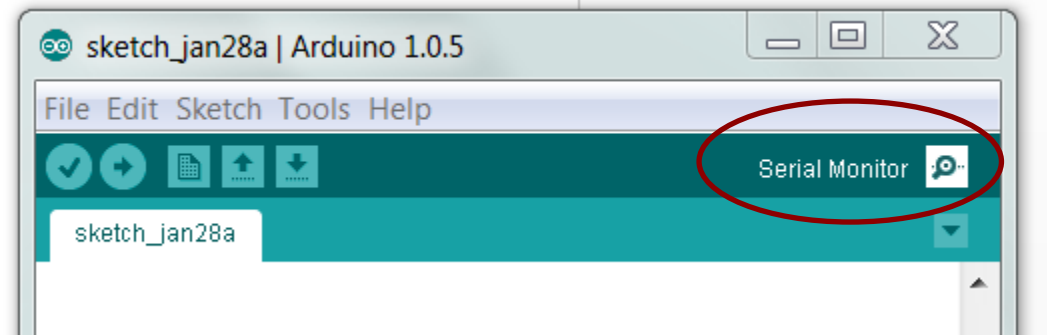
Using UART

- Setup
 - `Serial.begin(19200);`
- Use
 - `Serial.print("Hello world");`
 - `Serial.println();`

Communication

Using communications

- Terminal program
 - Arduino serial monitor
 - Putty
 - ...



Practical session

Using USB Communication

Program new output and readout in serial monitor