

Pointing System Communication Protocol

The communication protocol used to communicate with the Arduino pointing system software over UART is 4 bytes. These 4 bytes inform the system of correction factors to the z-axis (or azimuth) stepper motor. The protocol takes the following illustrated format:

$\overline{\text{S}} \quad \overline{\text{V}} \quad \overline{\text{V}} \quad \overline{\text{V}}$

Where S is a sign byte, and V is a value byte. There is technically no restriction to the values that can be sent, however sending nonsensical data will result in nonsensical behavior by the system.

Note: this protocol only allows integer value correction factors to be sent.

Example 1

Rotate stepper motor by -2 degrees

1002

Example 2

Rotate stepper motor by 43 degrees

0043

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