通讯协议们

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Serial Port Transmission Standard

Abstract

We have plenty type of package.
There are two different way to serialize a collection of data: XML and Binary.

Data Package

XML

The XML way work like this
`<TargetPosition X="234.4565" Y="418.1999" Z="251.303" Id="902466346"/>`

Binary

1 byte Magic Number as Header: -86 (1010_1010)
1 byte Sequence
1 byte Package Type
1 byte CRC of Data
1 byte Length of Data
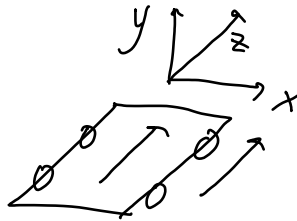Length byte of Data

Data Package Type

Target Position

TargetPosition=0
4 Byte float X in cm
4 Byte float Y in cm
4 Byte float Z in cm

Target Angle

TargetAngle=1
4 Byte float X Yaw in degree
4 Byte float Y Pitch in degree

Target Delta Angle

TargetDeltaAngle=2
4 Byte float X Yaw in degree
4 Byte float Y Pitch in degree

Cradle Head Position

CradleHeadPosition=128
4 Byte float X Yaw in degree
4 Byte float Y Pitch in degree

Cradle Head Velocity

CradleHeadPosition=129
4 Byte float X Yaw in degree/s
4 Byte float Y Pitch in degree/s

Fire

Fire=3
1 Byte Gun Id

1 Byte Amount in byte

Friction Speed
FrictionSpeed=4
1 Byte Gun Id
4 Byte Frequency in Min^-1