

Arduino_Serial_Communication_Library

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1 Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

SerialPacket	1
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2 File Index

2.1 File List

Here is a list of all files with brief descriptions:

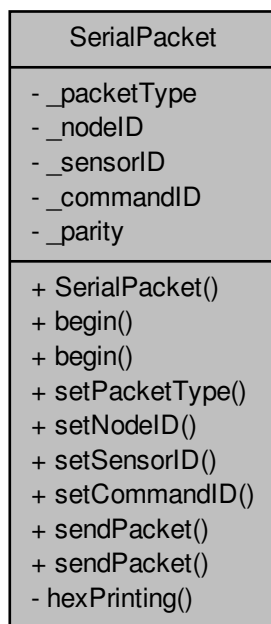
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3 Class Documentation

3.1 SerialPacket Class Reference

```
#include <SerialPacket.h>
```

Collaboration diagram for SerialPacket:



Public Member Functions

- [SerialPacket](#) ()
[SerialPacket.cpp](#) - Library for sending sensor data packets over UART. For more information: variable declaration, changelog,... see [SerialPacket.h](#)
- void [begin](#) ()
Begin variables: default values:
- void [begin](#) (long speed, uint8_t type, uint8_t nodeID, uint8_t sensorID, uint8_t commandID)
Begin using custom settings
- void [setPacketType](#) (uint8_t type)
Set packet type
- void [setNodeID](#) (uint8_t nodeID)
Set nodeID
- void [setSensorID](#) (uint8_t sensorID)
Set sensorID
- void [setCommandID](#) (uint8_t commandID)
Set commandID
- void [sendPacket](#) (uint8_t payload)
Send a single sample in a packet
- void [sendPacket](#) (uint8_t *dataArray, uint8_t length)
Send multiple data samples in one packet by passing an array and its length

Private Member Functions

- void [hexPrinting](#) (uint8_t data)
HexPrinting: helper function to print data with a constant field width (2 hex values)

Private Attributes

- uint8_t [_packetType](#)
- uint8_t [_nodeID](#)
- uint8_t [_sensorID](#)
- uint8_t [_commandID](#)
- uint8_t [_parity](#)

3.1.1 Detailed Description

Definition at line 30 of file SerialPacket.h.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 SerialPacket::SerialPacket ()

[SerialPacket.cpp](#) - Library for sending sensor data packets over UART. For more information: variable declaration, changelog,... see [SerialPacket.h](#)

Constructor

Definition at line 31 of file SerialPacket.cpp.

3.1.3 Member Function Documentation

3.1.3.1 void SerialPacket::begin ()

Begin variables: default values:

- nodeID: 0
- sensorID: 0
- packetType: 0

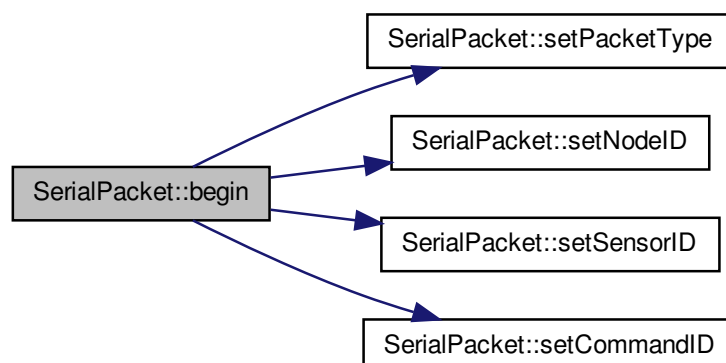
Definition at line 41 of file SerialPacket.cpp.

3.1.3.2 void SerialPacket::begin (long speed, uint8_t type, uint8_t nodeID, uint8_t sensorID, uint8_t commandID)

Begin using custom settings

Definition at line 49 of file SerialPacket.cpp.

Here is the call graph for this function:



3.1.3.3 void SerialPacket::hexPrinting (uint8_t data) [private]

HexPrinting: helper function to print data with a constant field width (2 hex values)

Definition at line 93 of file SerialPacket.cpp.

Referenced by `sendPacket()`.

Here is the caller graph for this function:



3.1.3.4 void SerialPacket::sendPacket (uint8_t payload)

Send a single sample in a packet

Definition at line 104 of file SerialPacket.cpp.

Here is the call graph for this function:

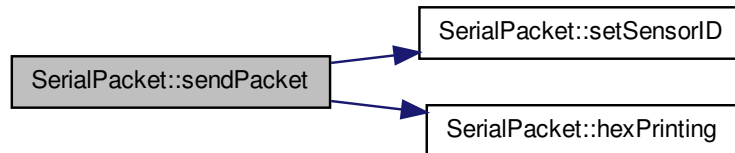


3.1.3.5 void SerialPacket::sendPacket (uint8_t * *dataArray*, uint8_t *length*)

Send multiple data samples in one packet by passing an array and its length

Definition at line 169 of file SerialPacket.cpp.

Here is the call graph for this function:



3.1.3.6 void SerialPacket::setCommandID (uint8_t *commandID*)

Set commandID

Definition at line 77 of file SerialPacket.cpp.

Referenced by `begin()`.

Here is the caller graph for this function:



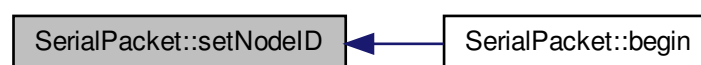
3.1.3.7 void SerialPacket::setNodeID (uint8_t *nodeID*)

Set nodeID

Definition at line 61 of file SerialPacket.cpp.

Referenced by `begin()`.

Here is the caller graph for this function:



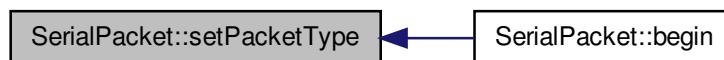
3.1.3.8 void SerialPacket::setPacketType (uint8_t *type*)

Set packet type

Definition at line 85 of file SerialPacket.cpp.

Referenced by begin().

Here is the caller graph for this function:



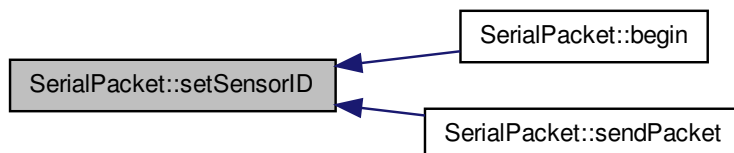
3.1.3.9 void SerialPacket::setSensorID (uint8_t *sensorID*)

Set sensorID

Definition at line 69 of file SerialPacket.cpp.

Referenced by begin(), and sendPacket().

Here is the caller graph for this function:



3.1.4 Member Data Documentation

3.1.4.1 uint8_t SerialPacket::_commandID [private]

Definition at line 50 of file SerialPacket.h.

Referenced by sendPacket(), and setCommandID().

3.1.4.2 uint8_t SerialPacket::_nodeID [private]

Definition at line 48 of file SerialPacket.h.

Referenced by sendPacket(), and setNodeID().

3.1.4.3 uint8_t SerialPacket::_packetType [private]

Definition at line 47 of file SerialPacket.h.

Referenced by sendPacket(), and setPacketType().

3.1.4.4 `uint8_t SerialPacket::_parity` [private]

Definition at line 51 of file `SerialPacket.h`.

Referenced by `sendPacket()`.

3.1.4.5 `uint8_t SerialPacket::_sensorID` [private]

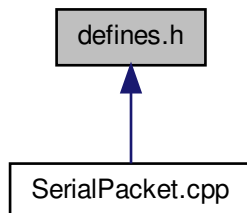
Definition at line 49 of file `SerialPacket.h`.

Referenced by `sendPacket()`, and `setSensorID()`.

4 File Documentation

4.1 `defines.h` File Reference

This graph shows which files directly or indirectly include this file:



Macros

- `#define SERIAL_ASCII`
- `#define COMMANDPACKET 1`
- `#define COMMANDREPLY 2`
- `#define DATAREQUESTPACKET 3`
- `#define DATAPACKET 4`
- `#define AGGREGATEDDATA 5`

4.1.1 Macro Definition Documentation

4.1.1.1 `#define AGGREGATEDDATA 5`

Definition at line 10 of file `defines.h`.

Referenced by `SerialPacket::sendPacket()`.

4.1.1.2 `#define COMMANDPACKET 1`

Definition at line 6 of file `defines.h`.

Referenced by `SerialPacket::sendPacket()`.

4.1.1.3 #define COMMANDREPLY 2

Definition at line 7 of file defines.h.

Referenced by SerialPacket::sendPacket().

4.1.1.4 #define DATAPACKET 4

Definition at line 9 of file defines.h.

Referenced by SerialPacket::sendPacket().

4.1.1.5 #define DATAREQUESTPACKET 3

Definition at line 8 of file defines.h.

Referenced by SerialPacket::sendPacket().

4.1.1.6 #define SERIAL_ASCII

Definition at line 3 of file defines.h.

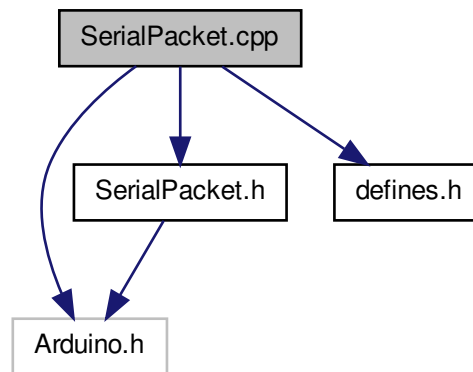
4.2 SerialPacket.cpp File Reference

```
#include <Arduino.h>
```

```
#include "SerialPacket.h"
```

```
#include "defines.h"
```

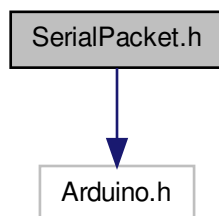
Include dependency graph for SerialPacket.cpp:



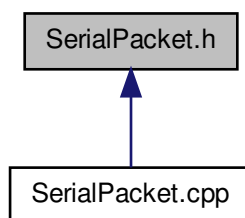
4.3 SerialPacket.h File Reference

```
#include <Arduino.h>
```

Include dependency graph for SerialPacket.h:



This graph shows which files directly or indirectly include this file:



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