# Main Loop

The main loop uses the function named get\_command to retrieve characters from the serial port.

The function named get\_command contains a while loop in which the serial is queried via a call to MSerial.available().

Each character from the serial port is saved to the buffer named cmdbuffer. This buffer is a 2 dimensional array: 4(BUFSIZE) x 96(MAX\_CMD\_SIZE).

The cmdbuffer is an array of strings! There are a maximum of 4 strings that can be processed at a time. The Marlin firmware will retrieve 4 strings from the serial stream.

# Stream Format Parser

When the stream begins, look for the text ILDA. This text is the beginning of an ILDA header section. If this is not detected then start from the beginning and look for the text again.

For now, the format code and the number of records count will be retrieved. All of the other header information is not needed at this time.

The format code defines the structure of the data record. For our purposes, format code 1 should suffice. Format code 1 is defined as having 2D coordinates with a status code and the indexed color.