

# Requirements for “Ghost in the Machine”

- Accepts one byte at a time
- The first byte of a packet is a left bracket [
- The second byte of a packet is the command ID, an ASCII letter in uppercase
- The third byte of a packet is the length of the data, an ASCII number between 0 and 9
- The next 0-18 bytes are the data
  - The bytes are all ASCII characters in the hexadecimal ranges 0-9 or A-F or a-f
  - Pairs of hex ASCII bytes represent two nibbles of a binary byte of data.
  - There must be exactly ‘n’ pairs of bytes, where ‘n’ is equal to the length field.
- The final byte of the packet is a right bracket ]
- Any illegal characters or missing pieces reset our state machine back to looking for a new packet.
- A left bracket always is accepted as the start of a packet and resets our state machine to “looking for a command”

[	cmd	len	... data ...	]
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