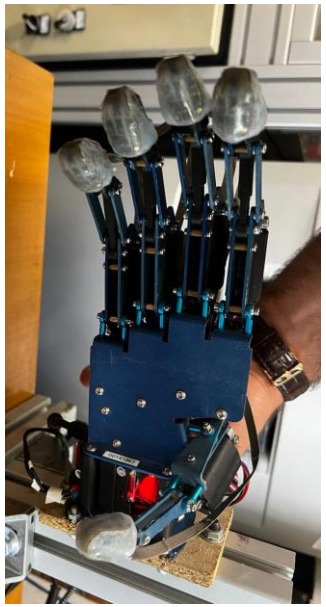
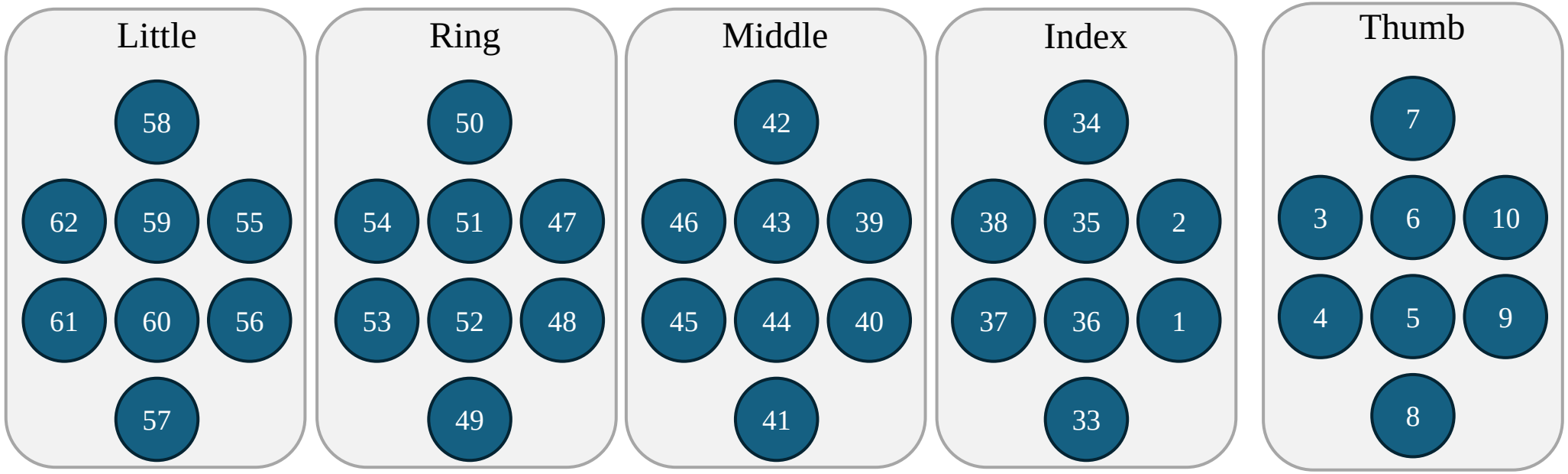
Sensor Mapping:





The communication protocol is composed of a single command that is used to activate the sensors:

The command is: **chnxxxxxxxx\n** where:

1- **chn**: is the header and it is fixed.

2- **xxxxxxxx**: is the hexadecimal representation of a 64bit integer, where each bit represent the activation status of a single sensor.

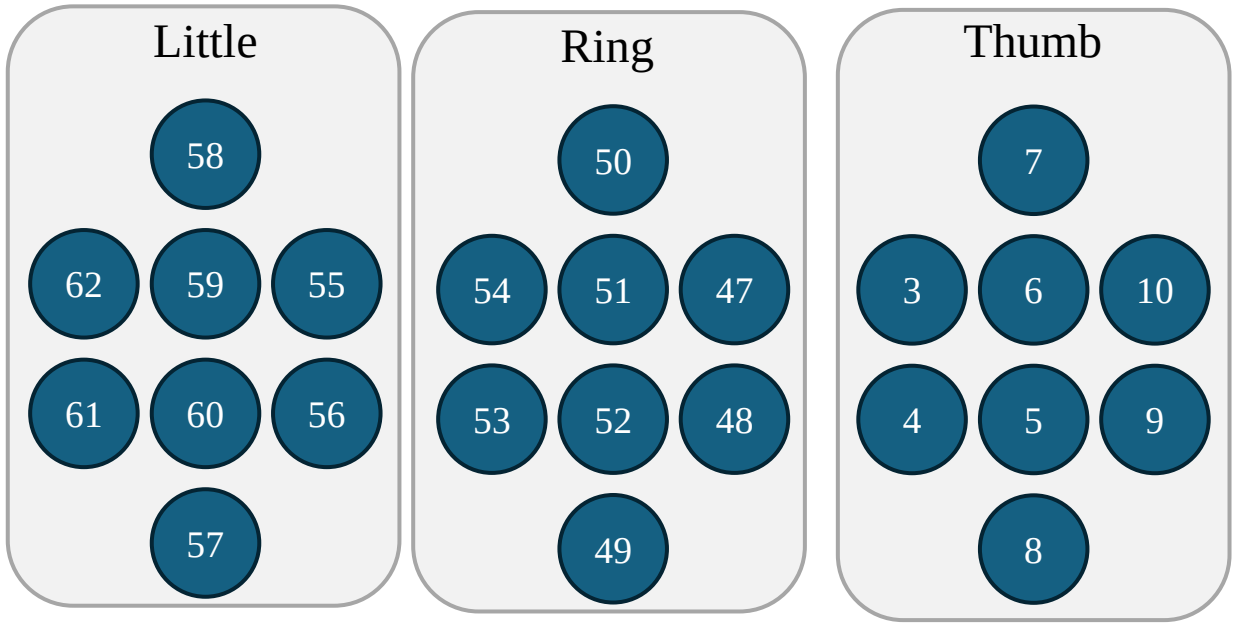
3- **\n**: the command terminator and it is fixed.

Binary presentation of **xxxxxxxx:**

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

64 ← **2 1**

Communication protocol:



Examples:

1- Disactivate all sensors: 6368 6E00 0000 0000 0000 000A

2- Activate sensor 1: 6368 6E00 0000 0000 0000 010A

3- Activate Thumb: 6368 6E00 0000 0000 0003 FC0A

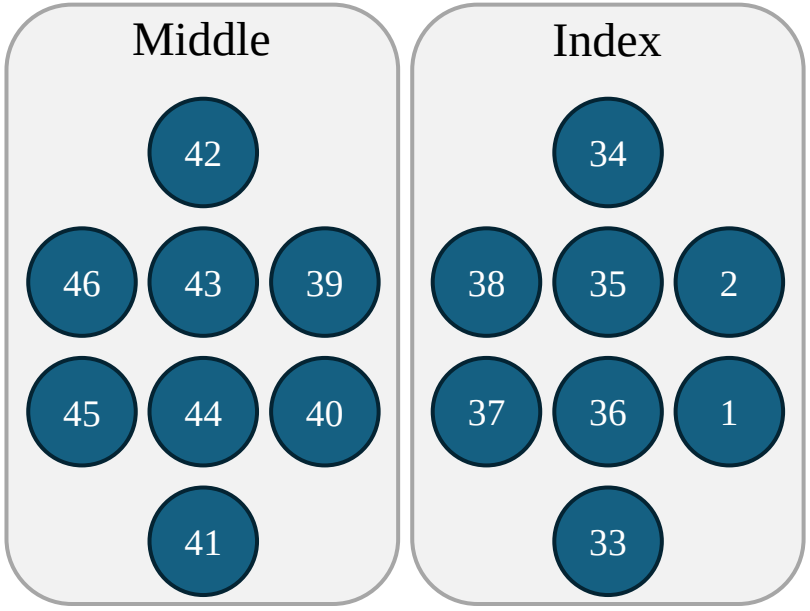
4- Activate Index: 6368 6E00 0000 3F00 0000 030A

5- Activate Middle: 6368 6E00 003F C000 0000 000A

6- Activate Ring: 6368 6E00 3FC0 0000 0000 000A

7- Activate Little: 6368 6E3F C000 0000 0000 000A

8- Activate the sensors on the AR10 hand: 6368 6E3F FFFF FF00 0003 FF0A



The communication with the sensing system should be at a baud rate of 10000000 bps. The response of the sensors will be retrieved by encoding the commands sent by the system to the host PC in the following form: 3C3E00x1x2xx……..xxn where

1- 3C3E00 is the fixed header, doesn't change.

2- Each of x1,…, and xn are the 2-byte representation of the voltage response of the first selected channel.

3- The order of the sensors follows the numerical order for example if sensors 1, 5, and 6 are selected then the command will be as follow: 3C3E00x1x5x6.