HexBot 2 – Button Functions

Tech:

- ESP32 microcontroller
- 13 x Servo motors
- VL53L01X TOF laser range finder
- 2.4GHz wireless control
- 64 x 128 OLED display
- 2 x 3.7v 3000mAh batteries
- 3-D printed construction

Features:

- Safe start, with LED blink indicators
- Hold button down until LEDs stop blinking, will cause it to stand up and respond to further button presses.
- 1 - LEDs display laser ranging
- 2 - backs away from approaching objects
- - returns to start point after 5 seconds
- 3 - target tracking at a fixed 20 cm distance
- 4 - autonomous scan & move behaviour
- - LEDs blink to acknowledge mode
- - LEDs display range & leg movement
- Battery Low sensing with cut-off
- NANO RESET button returns it to safe mode.

Enhancements:

- Scope within coding.

In Use:

- Legs will initial crouch when power is applied.
- Switch power OFF when not in use.

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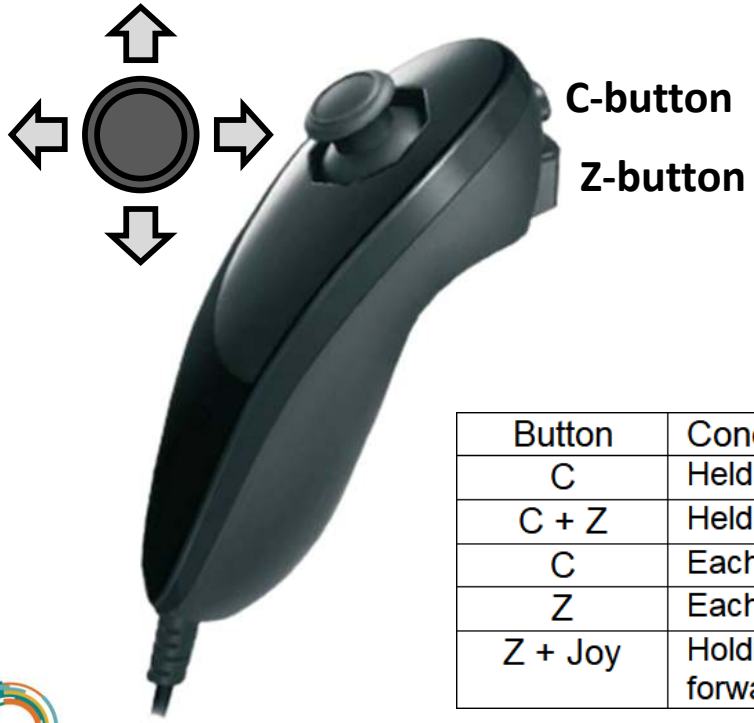
HexBot 2 – RC Demo Functions



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Features:

- Safe start, with LED indicators
- Controlled via Wii Nunchuk
- Walks and turns in both directions
- Performs pre-set moves – bow and wave
- Variable speed motion
- Display modes
- Battery Low sensing with cut-off
- Data can be returned via the wireless link

Enhancements:

- None.

Button	Conditions and responses
C	Held initially for > 1 second to make the robot stand and become 'active'.
C + Z	Held for > 2 seconds will return the robot to an 'inactive' safe state.
C	Each press will increase the responsiveness of the robot from 1 – 5 (max).
Z	Each press will decrease the responsiveness of the robot from 5 – 1 (min).
Z + Joy	Holding Z will change the right/left walking modes from turning to walking sideways, forwards will become a 'bow' and reverse will become a 'hello wave'.