Card functions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| English | 名字 | Spanish | Description | Special Function |
| Start | 开始 | Empezar | Starts the sequential program | n/a |
| Reset | 重置 | Resetear | Pauses the execution of the program. If it is not running, it will clear the memory. | n/a |
| Go Ahead | 前进 | Adelante | Moves one step forward (about 15cm) | Moves a small step forward ( 5cm?) |
| Turn Left | 左转 | Gira a la izquierda | Turns 90 degrees left | Turns a small step (15 degrees) |
| Turn Right | 右转 | Gira a la derecha | Turns 90 degrees right | Turns a small step (15 degrees) |
| Go Back | 后退 | Atras | Moves one step backward (about 15cm) | Moves a small step backward ( 5cm?) |
| Lift | 手臂 | Levantar | Toggles both servos position 0/90 degrees. If followed by a parameter, it adjusts the angle. | Toggles both servos position within 15 degrees |
| Listen | 听 | Escuchar | It returns a parameter with the audio volume detected. | It has a logic output of YES/NO referred to a clap |
| See | 探测 | Detectar | It returns a parameter with the distance, normalized to 100 | It has a logic output of YES/NO referred to a 5cm |
| Feel | 触摸 | Sentir | It returns a parameter with the inclination, normalized to 100 | It has a logic output of YES/NO referred to double tap |

Note 1: colors combine with each other. Intensity modifies if followed by a value.

Note 2: all parameters are normalized between a 0 and 10, or a min and max. In the case of musical notes Do, Re, Mi, Fa, Sol, La, Si and Do, Re, Mi of the following octave.

Note 3: Servos detach when not moving.

Note 4: Need a visual/audio indication when: card is read, program is executing, battery is low

Spells

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Repeat | 重复 | Repetir | It reproduces a chunk of code. If followed by a sequence of store/code/store, it redefines the function. If it has a repeat inside of it's own definition, it loops forever. | idem |
| Store | 储存 | Guardar | Starts / ends the content of Functions. It works as brackets | idem |
| Random | 随机 | Azar | Gives a random number that affects the behavior of the last order. |  |
| Teach | 教学 | Enseñar | Teaches a set of movements |  |
| Boost | ??更改 | Especial | Modifies other functions. It stays ON only for one card. It modifies the way that the light glows. | Sets Special like a caps lock. |
| Pause / Freeze | 暂停 | Pausa | Waits for 1s | Waits for 10s |
| Sound | 声音 | Sonido | combined with store, allows to save a new recorded sound. Alone, it plays it | it has a s |

7 colors of rainbow

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Red | 红色 | Rojo | Turns ON led to glow Red. | Blinking Red |
| Green | 绿色 | Verde | Turns ON led to glow Green | Blinking Green |
| Orange | 橙色 |  |  |  |
| Yellow | 黄色 |  |  |  |
| indigo | 靛蓝 |  |  |  |
| violet | 紫色 |  |  |  |
| Blue | 蓝色 | Azul | Turns ON led to glow Blue | Blinking Blue |

7 notes of music

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| do | do |  |  |  |
| re | re |  |  |  |
| mi | mi |  |  |  |
| fa | fa |  |  |  |
| sol | sol |  |  |  |
| la | la |  |  |  |
| si | si |  |  |  |

learning by demonstration

similar to behavior

demonstrating the kinetic

mode to teach the robot movements

custom capabilities

IMU with encoders