Protoboard being used: <https://www.bigtronica.com/poblado/herramienta-accesorios/protoboards-pcbs/1786-circuito-impreso-universal-47x73cm.html?search_query=protoboard&results=68>

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  | **5V** | **Gnd** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Out+ | Head- |  | Head+ |  | Swi |  |  |  |  |
|  |  |  |  |  | Wire 4 | Wir 16 | Out+ |  | Wire 2 | Wir17 |  | In+ | In+ | Swi |  |  |  |  |
| Head- | Wir 14 |  |  |  |  | - | Wire 1 |  |  | Wire 1 |  | Wire 2 |  | + |  |  | Wir17 | Head- |
| Head+ | Wire 4 |  |  |  |  |  |  |  |  | Wir 14 |  |  |  |  |  |  | Wir18 | Head+ |
| Head | Wir 15 |  |  |  | Wir 15 | D11 |  |  | Wir18 | In- |  |  | Wir 19 | A2 |  |  | Wir 19 | Head |
|  |  |  |  |  |  |  |  |  |  | In- |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Wir 5 | D10 | Swi |  |  | Swi |  |  | Wir 21 | A1 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Head | Wir 3 |  |  |  | Wir 3 | D9 |  |  |  |  |  |  | Wir 20 | A0 |  |  | Wir 20 | Head |
| Head+ | Wir 16 |  |  |  |  |  |  |  | Wire 7 |  |  |  |  |  |  |  | Wire 7 | Head+ |
| Head- | Wire 6 |  |  |  |  |  |  |  |  | Wire 6 |  |  |  |  |  |  | Wire 8 | Head- |
|  |  |  |  |  | Wir 5 | Res 2 |  |  |  | Wire 8 |  |  |  |  |  |  |  |  |
| x |  |  |  |  |  |  |  |  |  |  |  | Res1 |  | But |  |  | But | Wir 21 |
|  |  |  |  |  |  |  |  |  | Res 2 | Out- |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Wir 10 |  |  |  | Wir 10 | But |  |  | But |  |
|  |  |  |  |  |  |  |  |  |  | Wir11 |  | Res1 |  | Wir11 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | Out- |  |  |  |  |  |  |  |  |

# Key

|  |  |
| --- | --- |
| Power Switch | EMG Sensor |
| 5V Regulator | Button |
| 6V Regulato | Lock Switch |
| Battery | Arduino – Female Headers |
| Servo | Res = Resistor |
| Wire |  |

# Order

1. Resistors
2. Button
3. All wires
4. Header pins
5. Switches
6. Voltage converter wires
7. Arduino
8. Mount Voltage converters on back with foam insultation & hot glue

# Completed Board

