

Construindo um Robô Rádio Controlado

Pedro Igor Borçatti da Silva - pibscontato@gmail.com - [@pedro_ibs](https://twitter.com/@pedro_ibs)

Qual o primeiro passo?

O que eu quero com esse robô?

Como fazer?

Quem vai fazer?

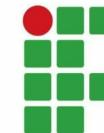
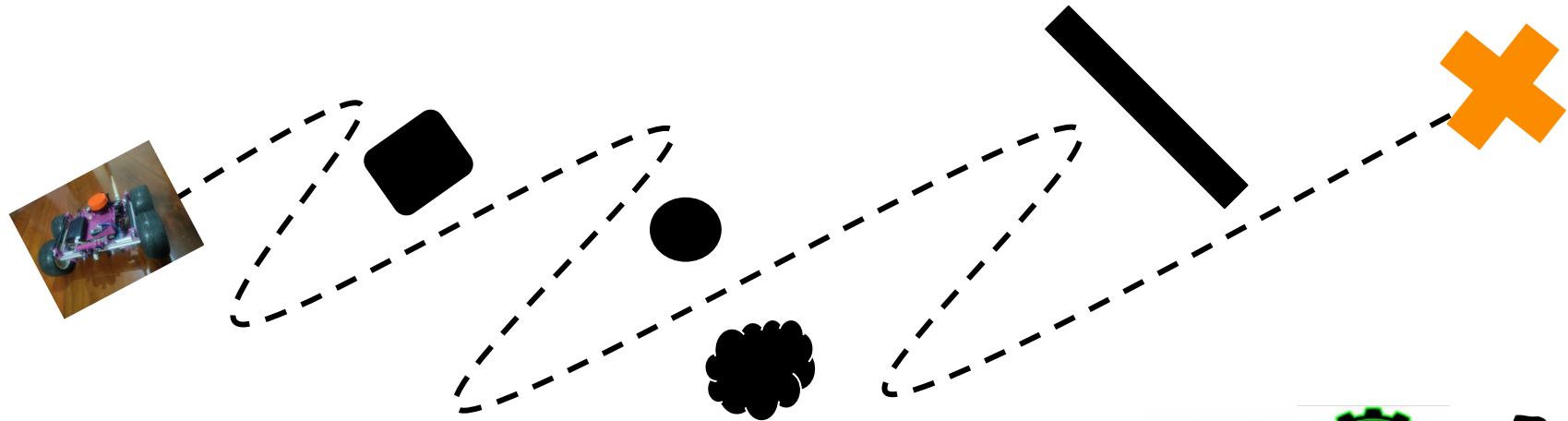
Para quem não sabe para onde vai qualquer caminho serve!!

O que o robô deve fazer?

Em quanto tempo?



Ir de um ponto a outro sem a minha interferência!



Recursos!

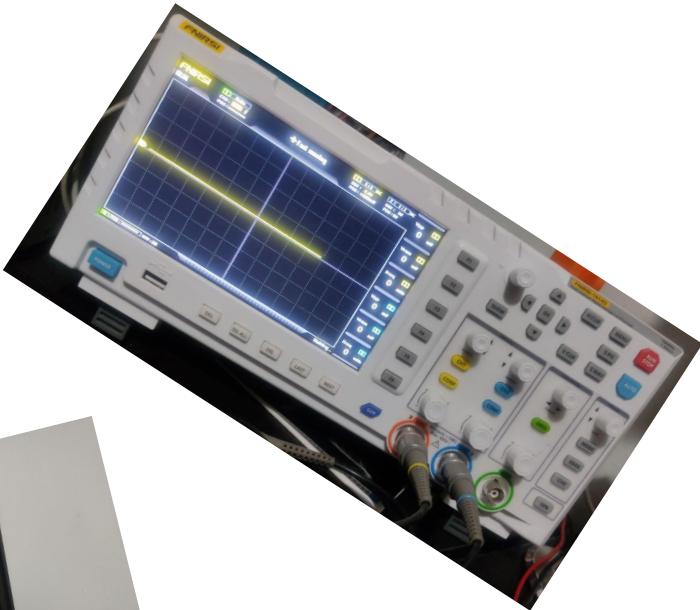
Tempo e Custo

Peças

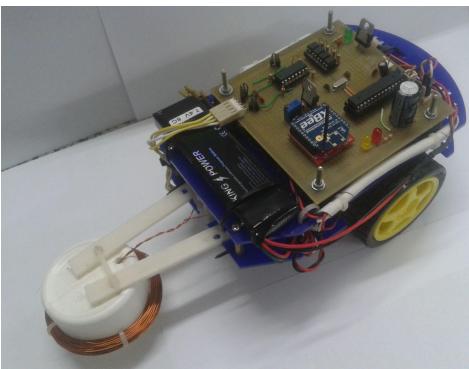
Ferramentas

Hardwares

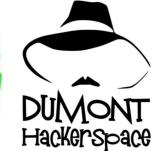
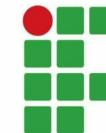
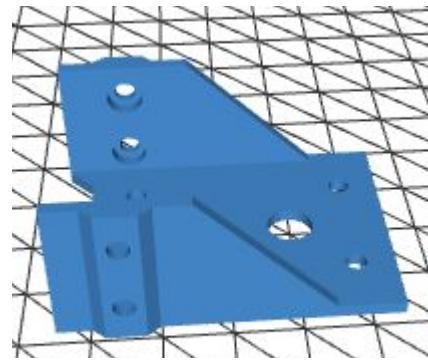
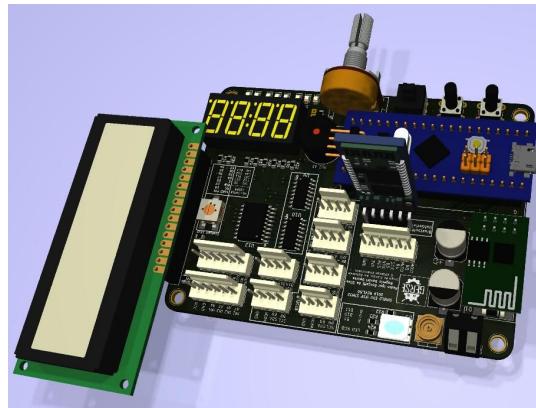
Softwares



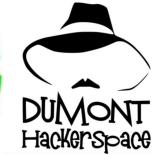
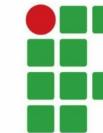
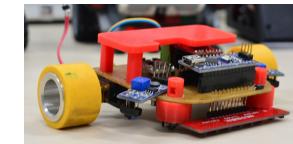
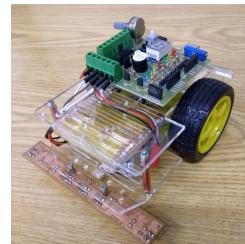
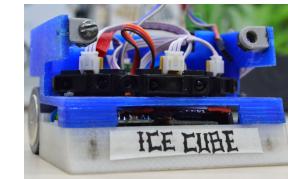
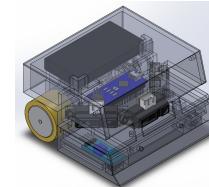
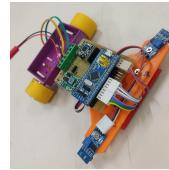
Recursos técnicos alternativos



Recursos - Softwares



Recursos - Trabalho em equipe



Recursos intelectuais

Estudos mas deve ter prática!

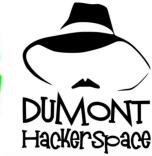
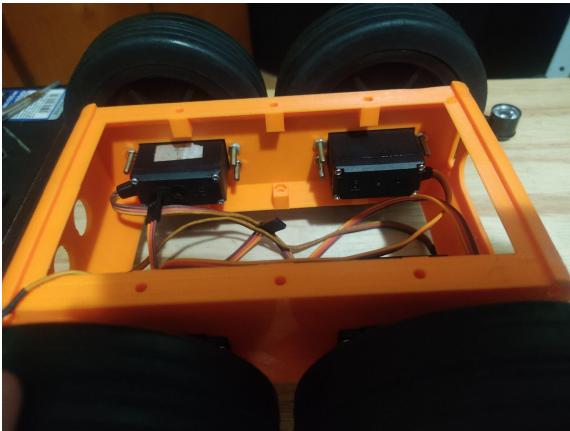
Uma equipe pode ajudar.

Peça ajuda!

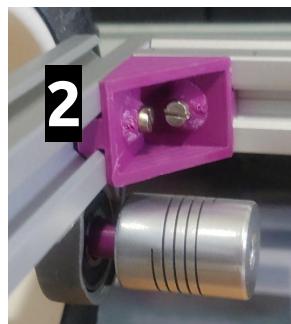
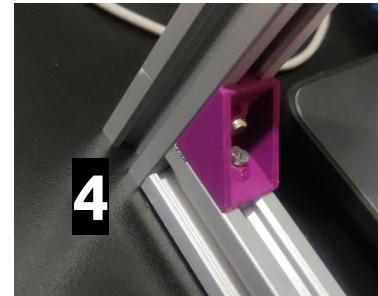
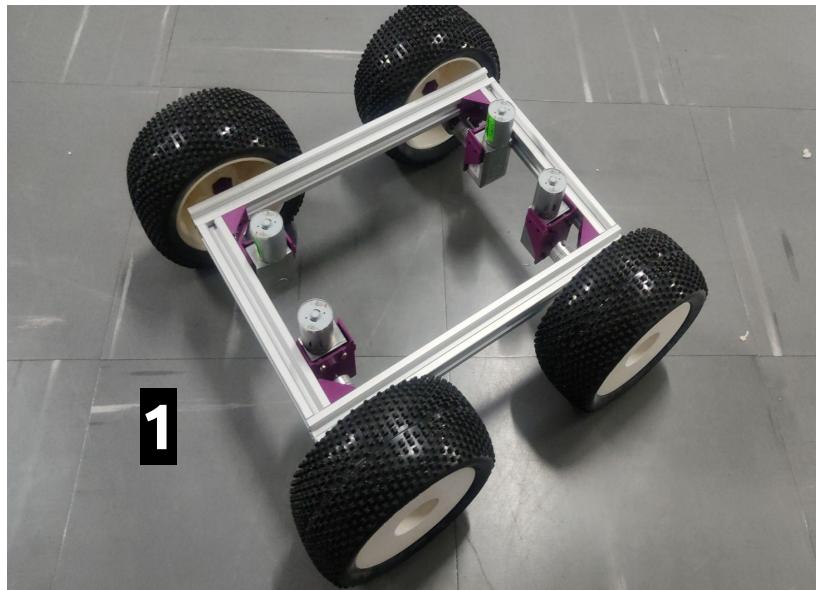
Conciliar Conhecimentos e Atividades.



O início



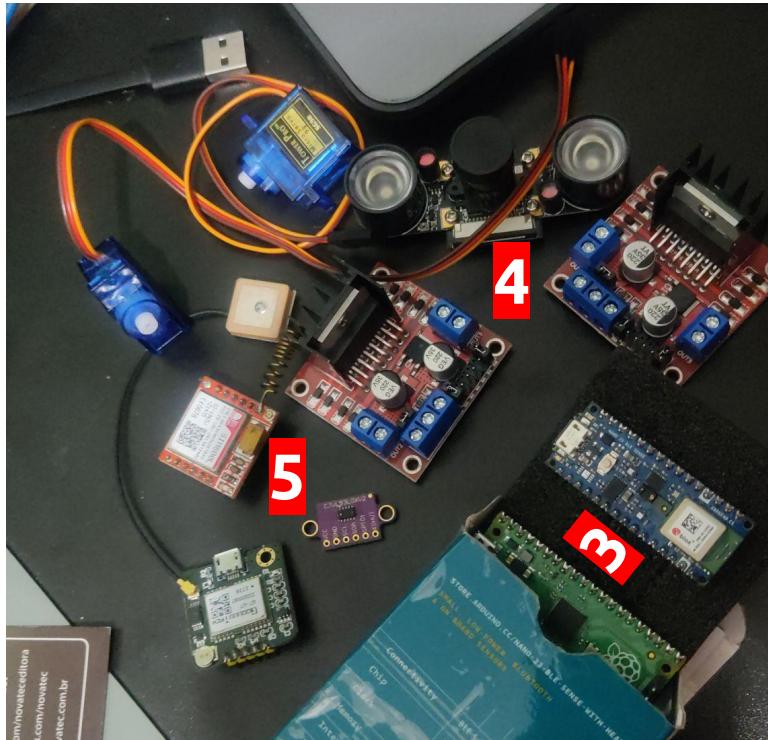
Mas no fim tudo diferente



Eletrônica



1

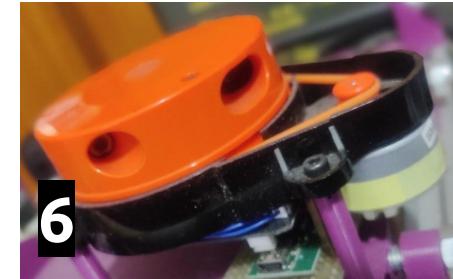


4

5

3

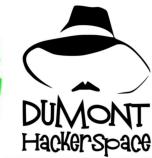
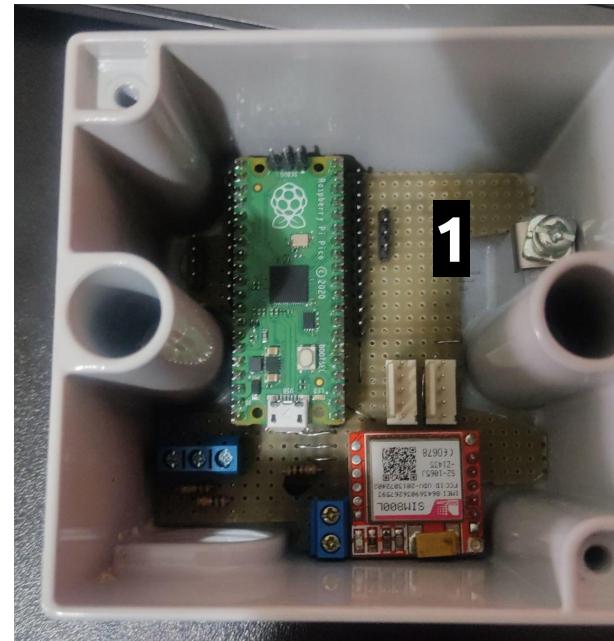
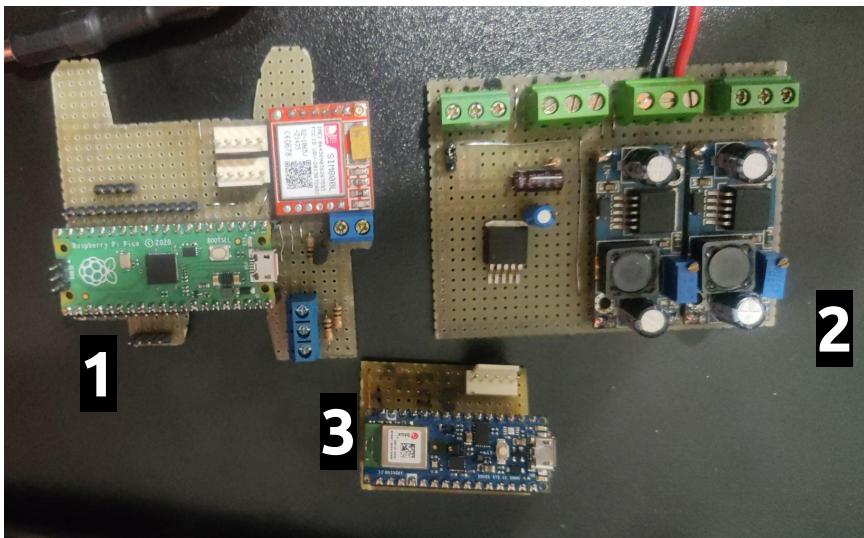
2



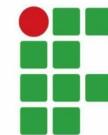
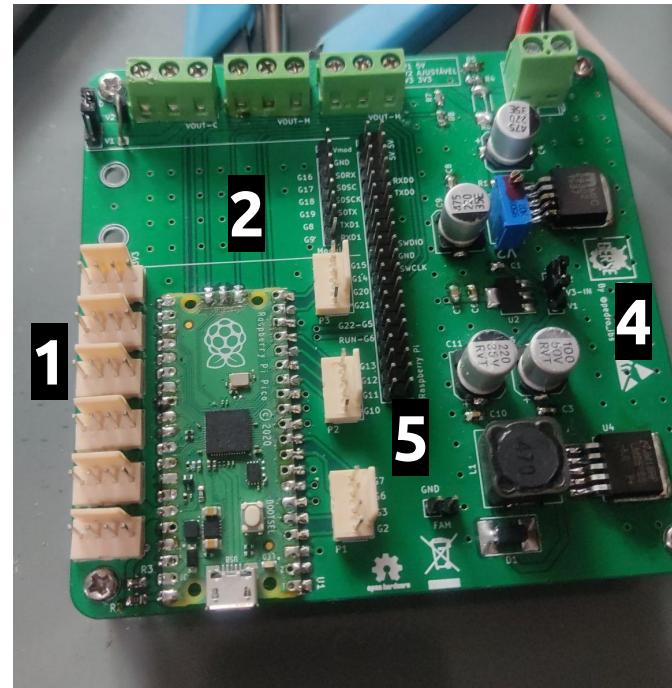
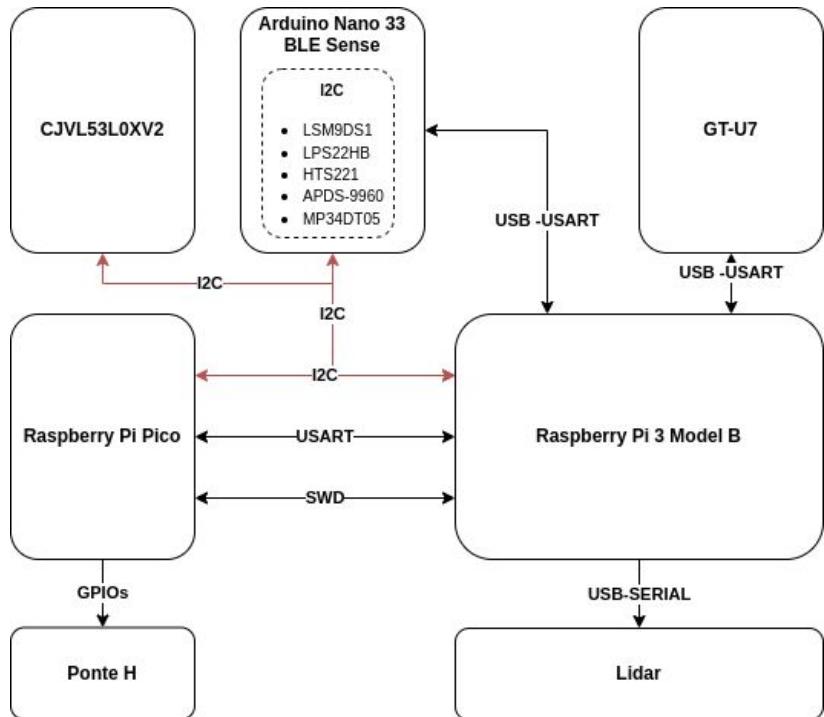
6



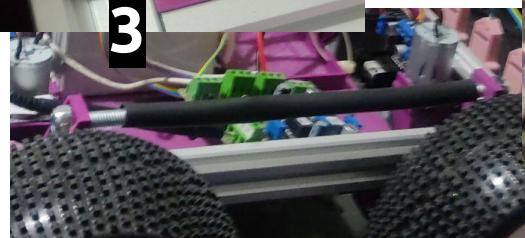
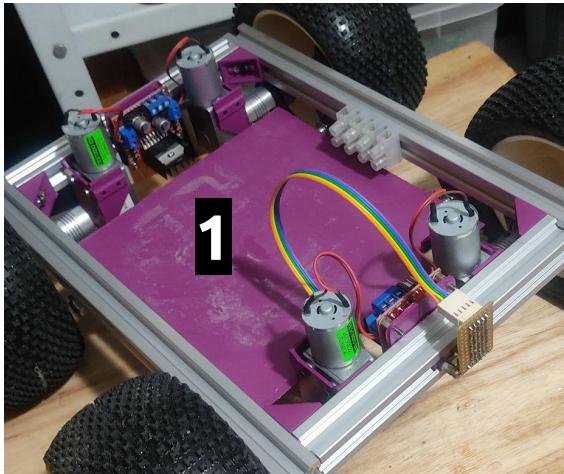
Eletrônica

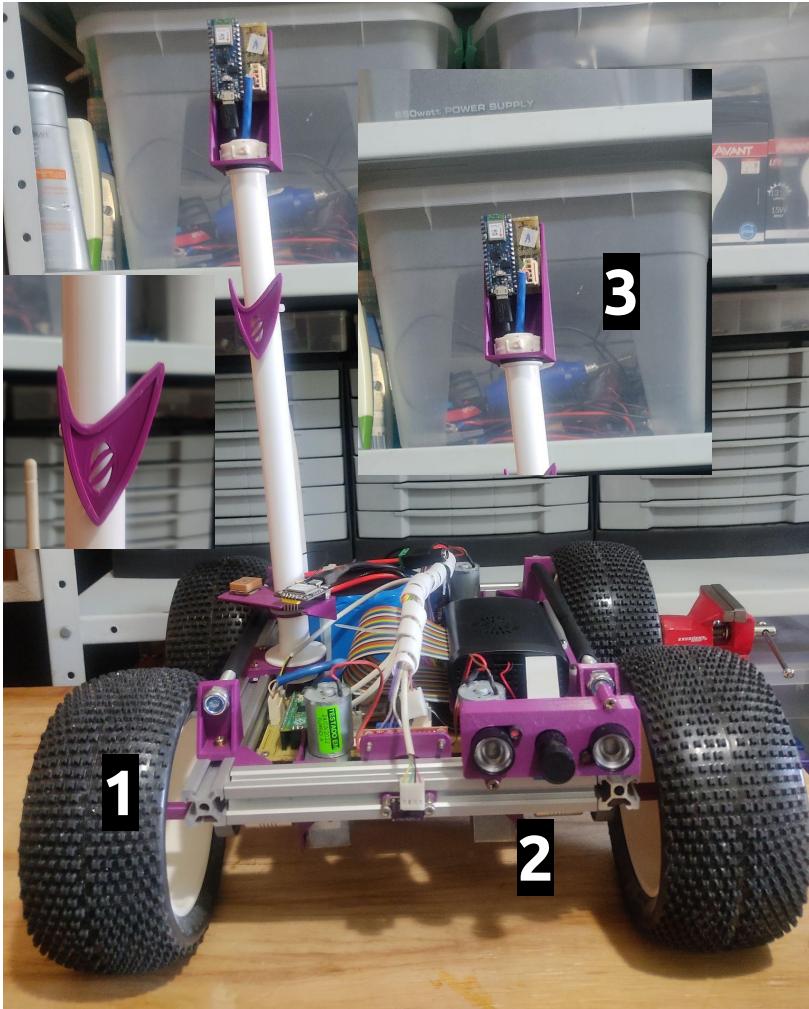


Eletrônica

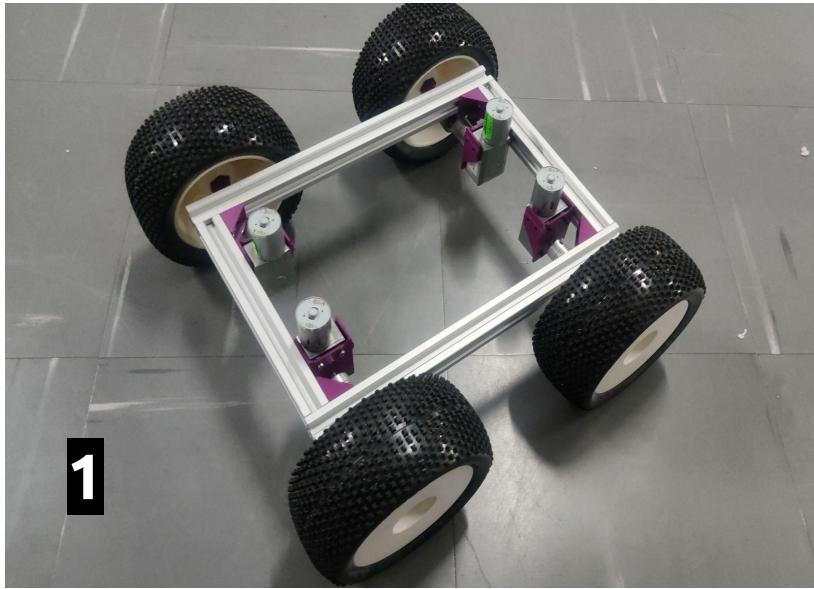


Características

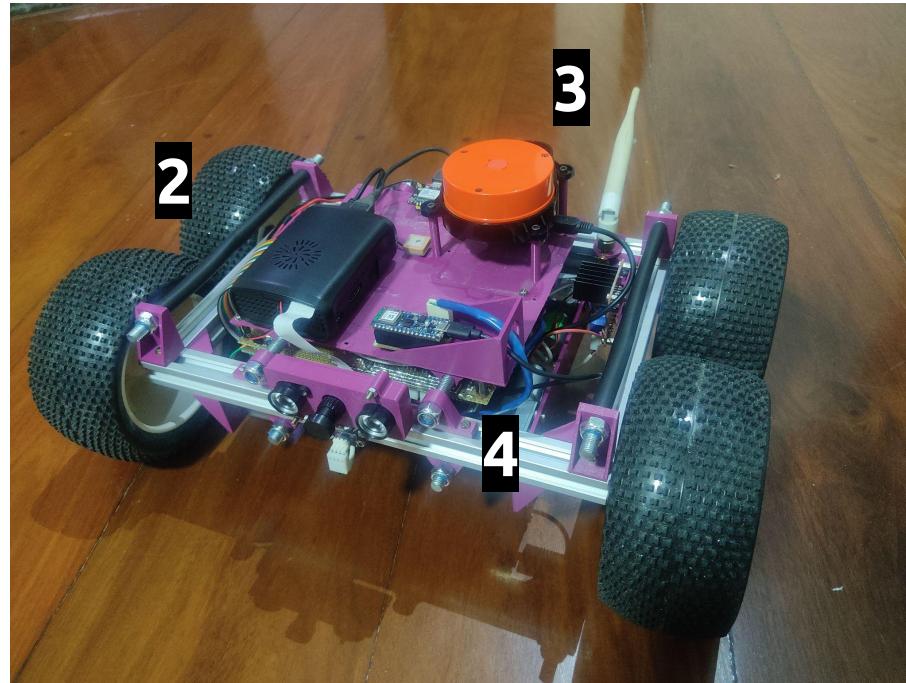
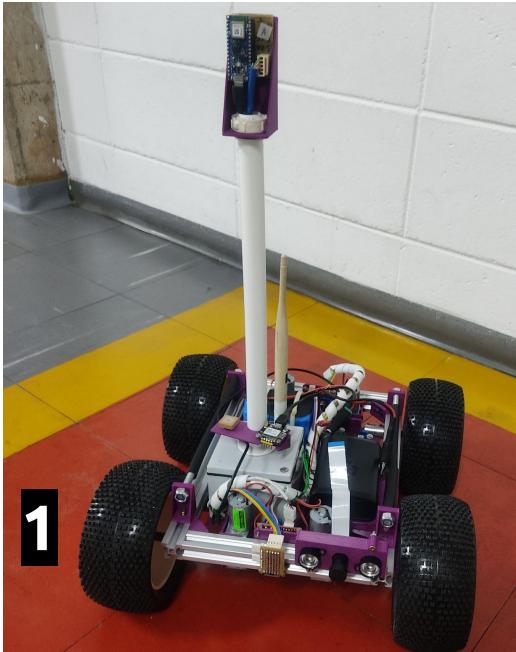




Ele não vira :(

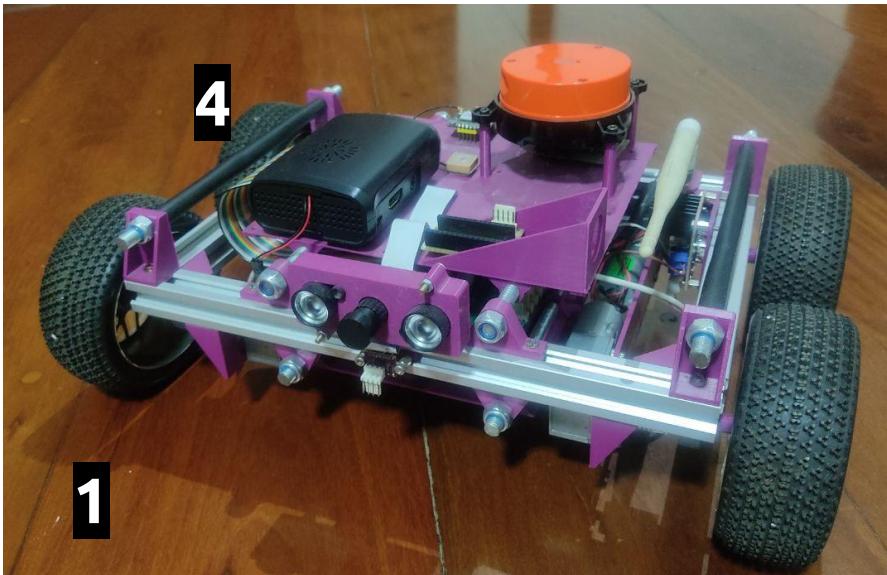


Ele não vira :/ o.O

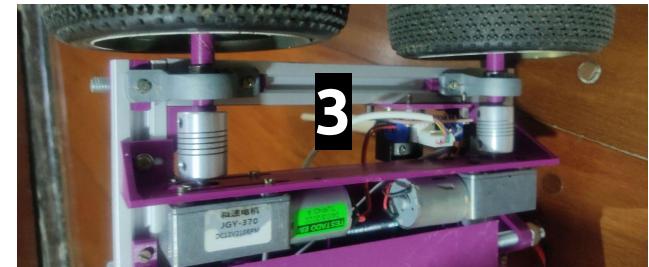


Agora Foi :)

XD



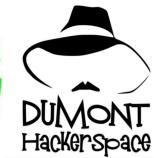
1



3



2



Driver dos motores



1

```
x:0/  
s:0/  
f:30000/  
b:10000/  
l:40000/  
L:30000:0/  
r:30000/  
R:10000:65535/
```

2

Comando	PWM Polo A/B	PWM Polo B	Descrição
x	X	X	Reinicia o Driver
s	X	X	Desliga os motores
f	0 - 65535	X	Robô para frente
b	0 - 65535	X	Robô para trás
l	0 - 65535	X	Robô gira para esquerda
L	0 - 65535	0 - 65535	Controla conjunto esquerdo
r	0 - 65535	X	Robô gira para direita
R	0 - 65535	0 - 65535	Controla conjunto direito

3



4



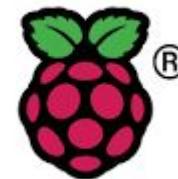
```
87 while True:  
88     try:  
89         send_cmd( "s:0/" )  
90  
91         FindEvent1 = True  
92         while FindEvent1:  
93             time.sleep(1)  
94             dir_list = os.listdir(path)  
95  
96             for elem in dir_list:  
97                 if elem == "event1":  
98                     FindEvent1 = False  
99  
100        gamepad = InputDevice( '/dev/input/event1' )  
101  
102        print( gamepad )  
103        print( gamepad.capabilities( verbose = True ) )  
104  
105        for event in gamepad.read_loop():  
106            run_command( categorize( event ) )  
107            if event.type == ecodes.EV_KEY:  
108                show_event(categorize(event))  
109            elif event.type == ecodes.EV_ABS:  
110                absevent = categorize(event)  
111                show_event(absevent)  
112  
113        except OSError as Error:  
114            print(Error)  
115            FindEvent1 = True  
116            pass
```

4
5
6
7
8

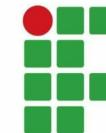
Controle

```
from evdev import InputDevice, categorize, ecodes  
import os  
import time  
import serial  
  
ser = serial.Serial('/dev/ttyS0', 19200, timeout=0 )  
path = '/dev/input/'
```

3
2



1



Grato pela atenção XD

Alguma dúvida ?

pibscontato@gmail.com

@pedro_ibs

