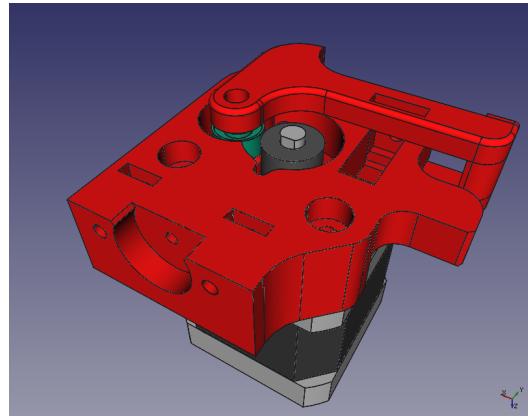


# Alexandre Aravecchia

*Design Industrial*



Modelagem 3D para Engenharia  
desde **1993.**



Professor na [Escola de Impressão 3D](#).

Escreve no [Blog Maker Hero](#).

Youtube: [Aravecchia 3D](#)

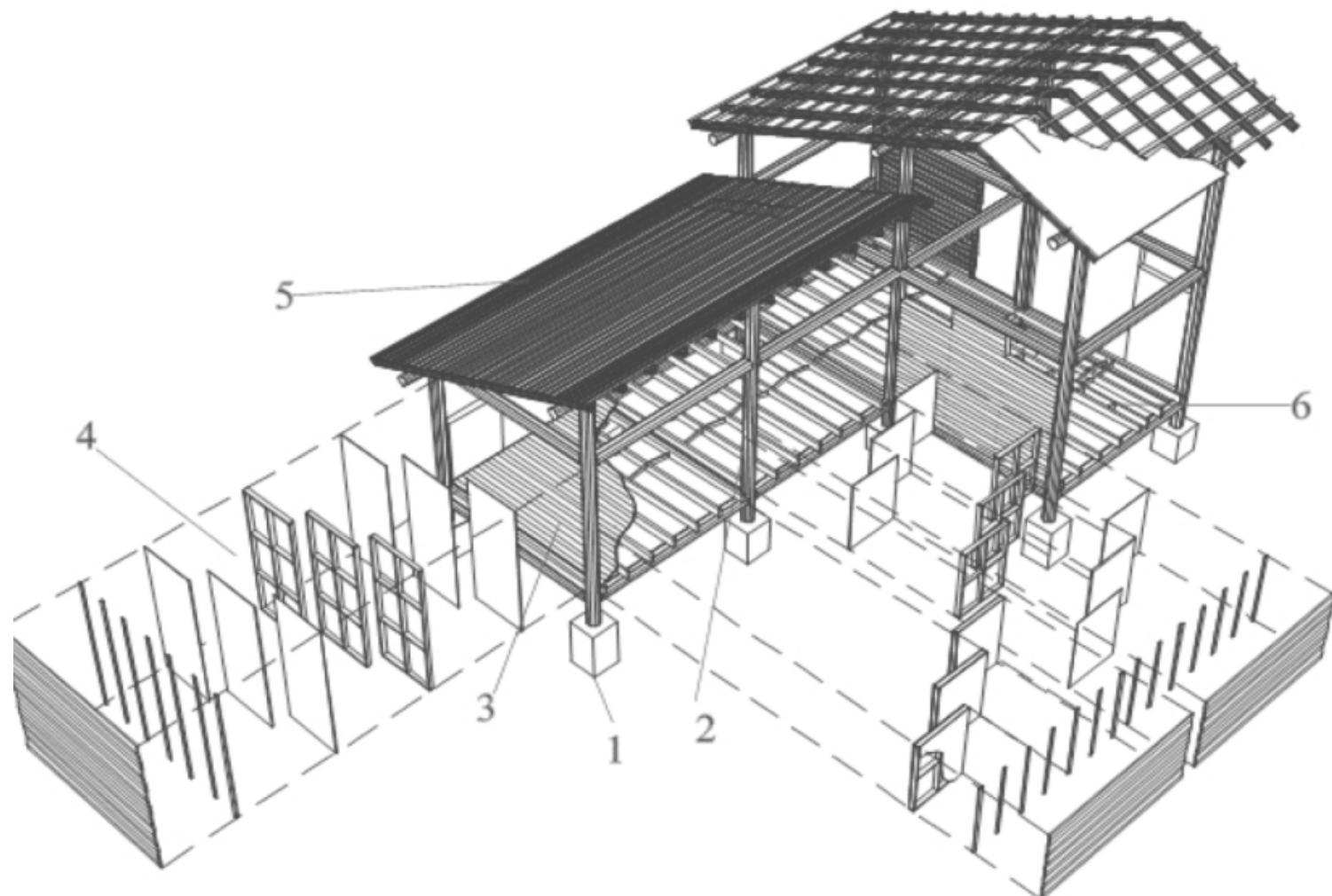
Github: [aravecchia](#)

Tiktok: [@aravecchia](#)

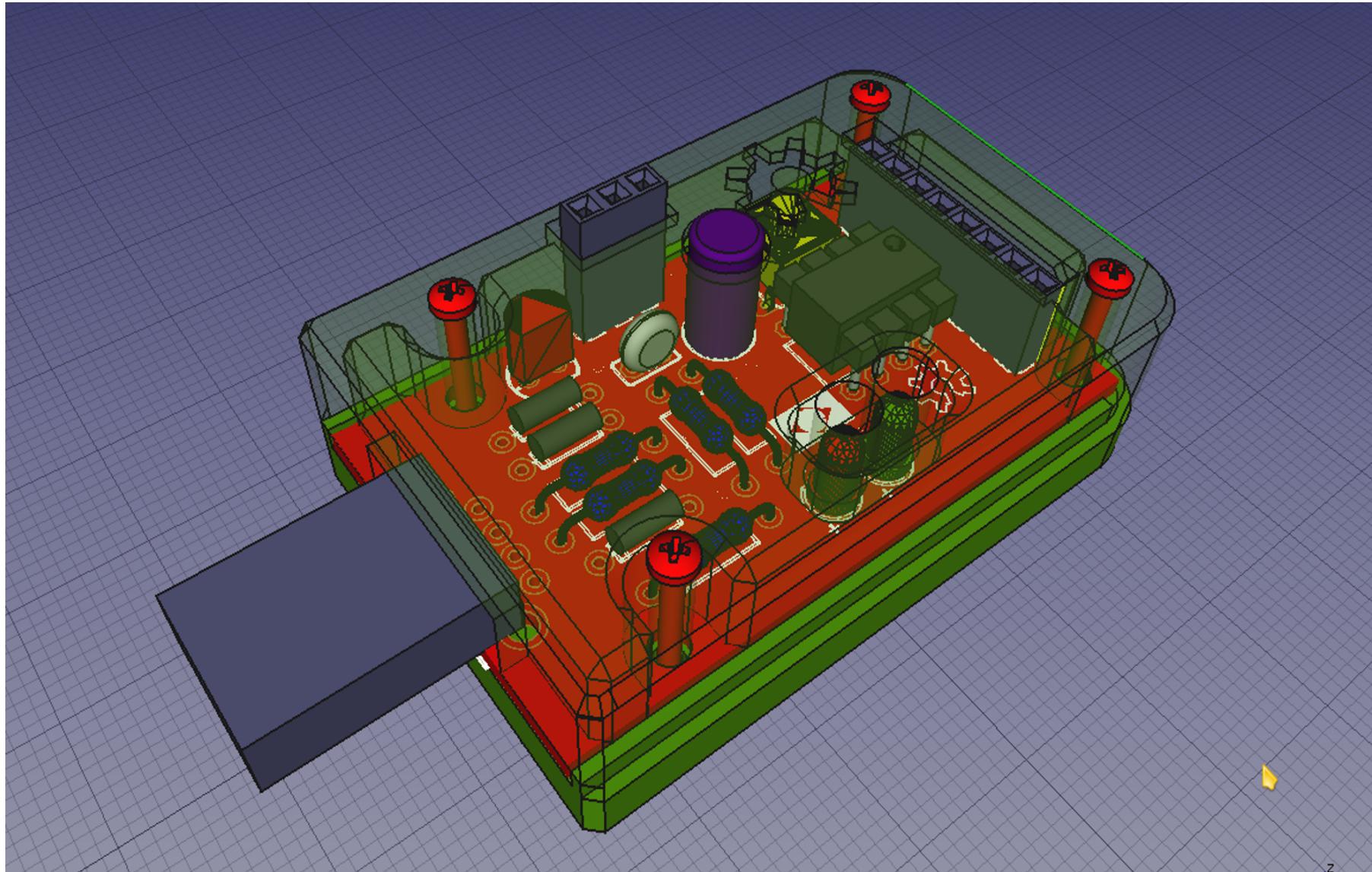
WhatsApp: [\(16\) 9 8164 5723](#)

Email: [aravecchia@gmail.com](mailto:aravecchia@gmail.com)

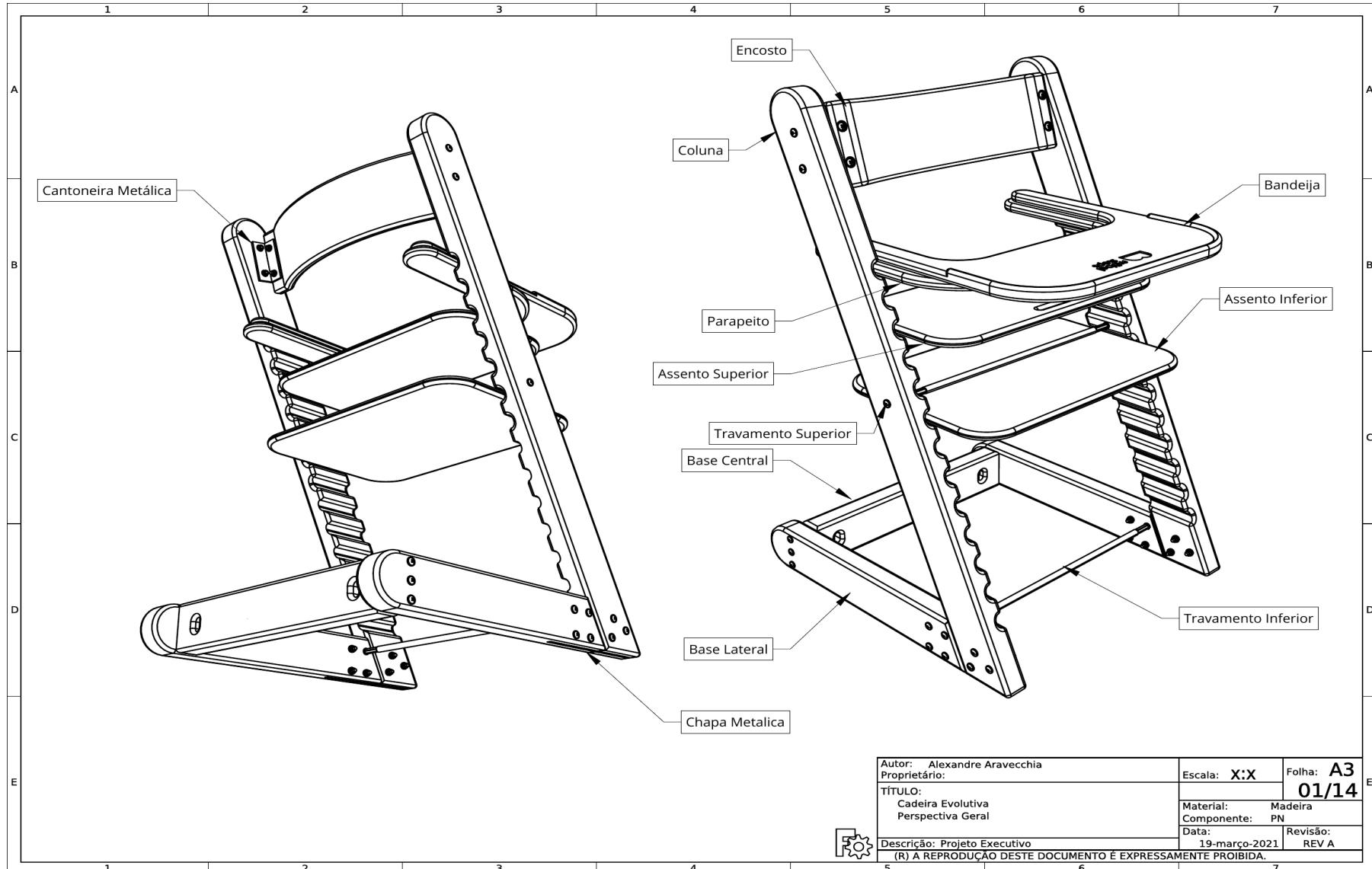
# Casa do Horto Florestal - UFSCar - 1995



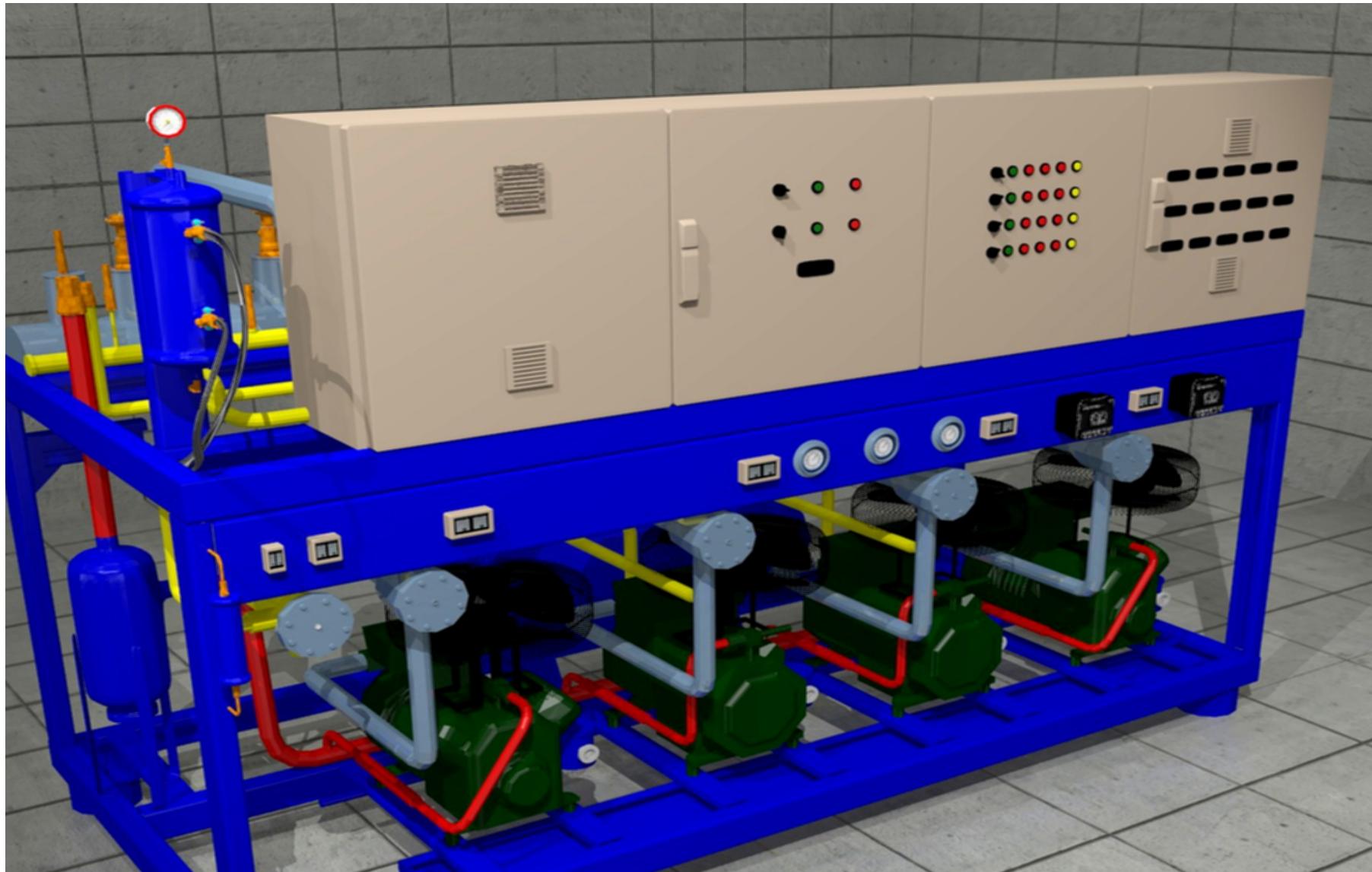
Desenvolvido em AT-486dx2 - MSDOS 6.0 - AutoCAD R.12



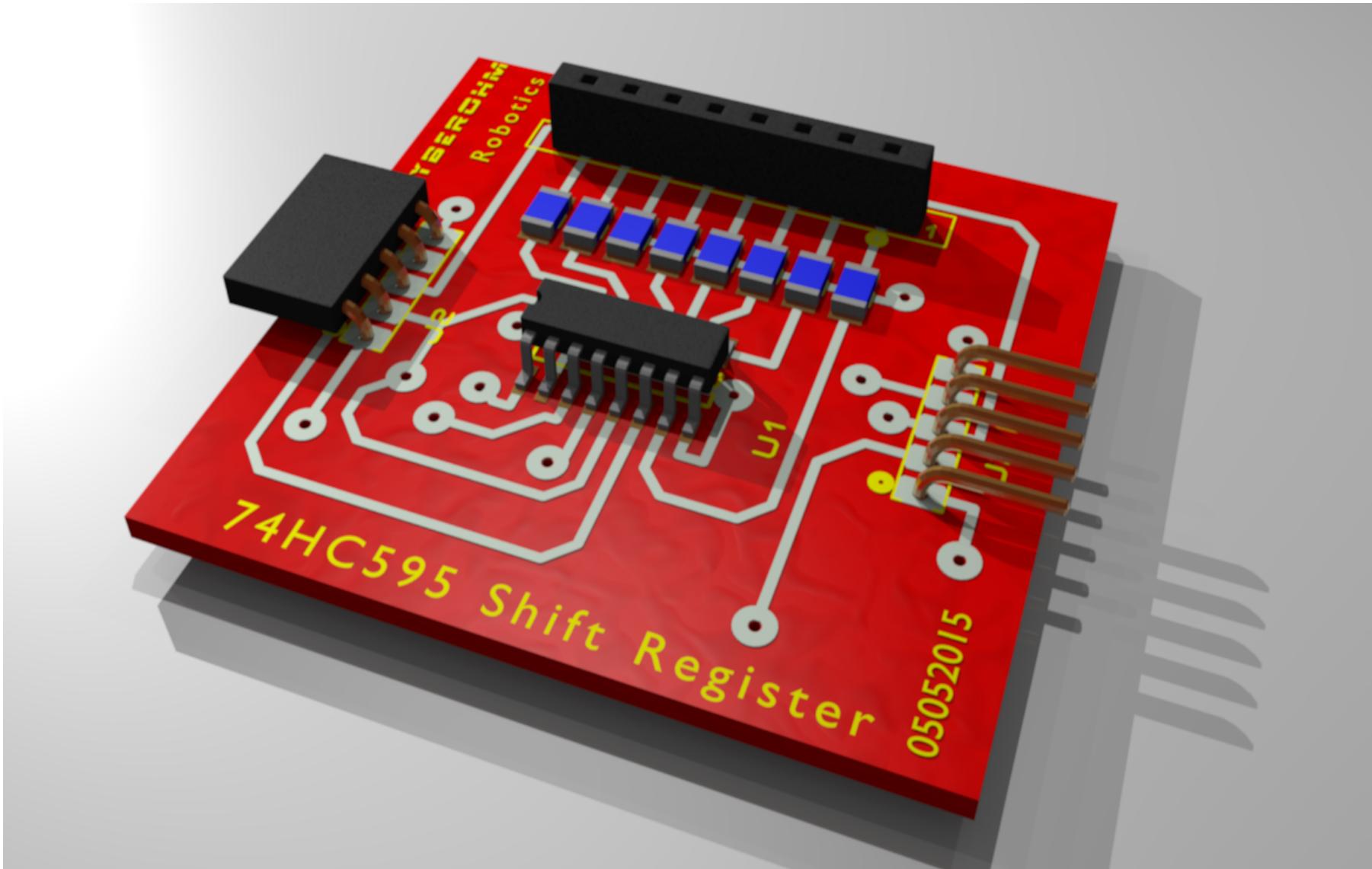
**Case para projeto Franzininho**



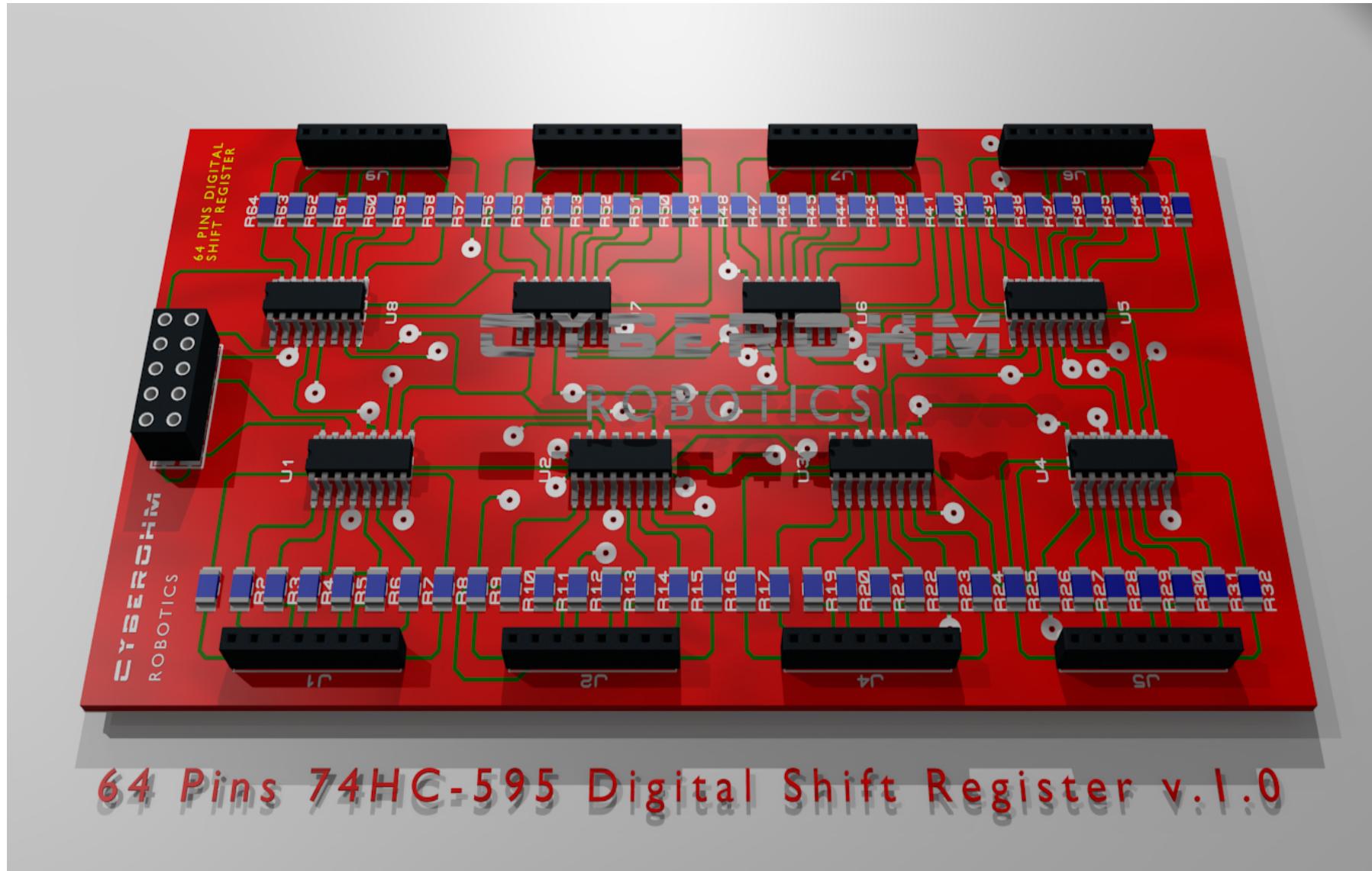
## Cadeira Montessoriana ajustável



**Sistema de refrigeração industrial**



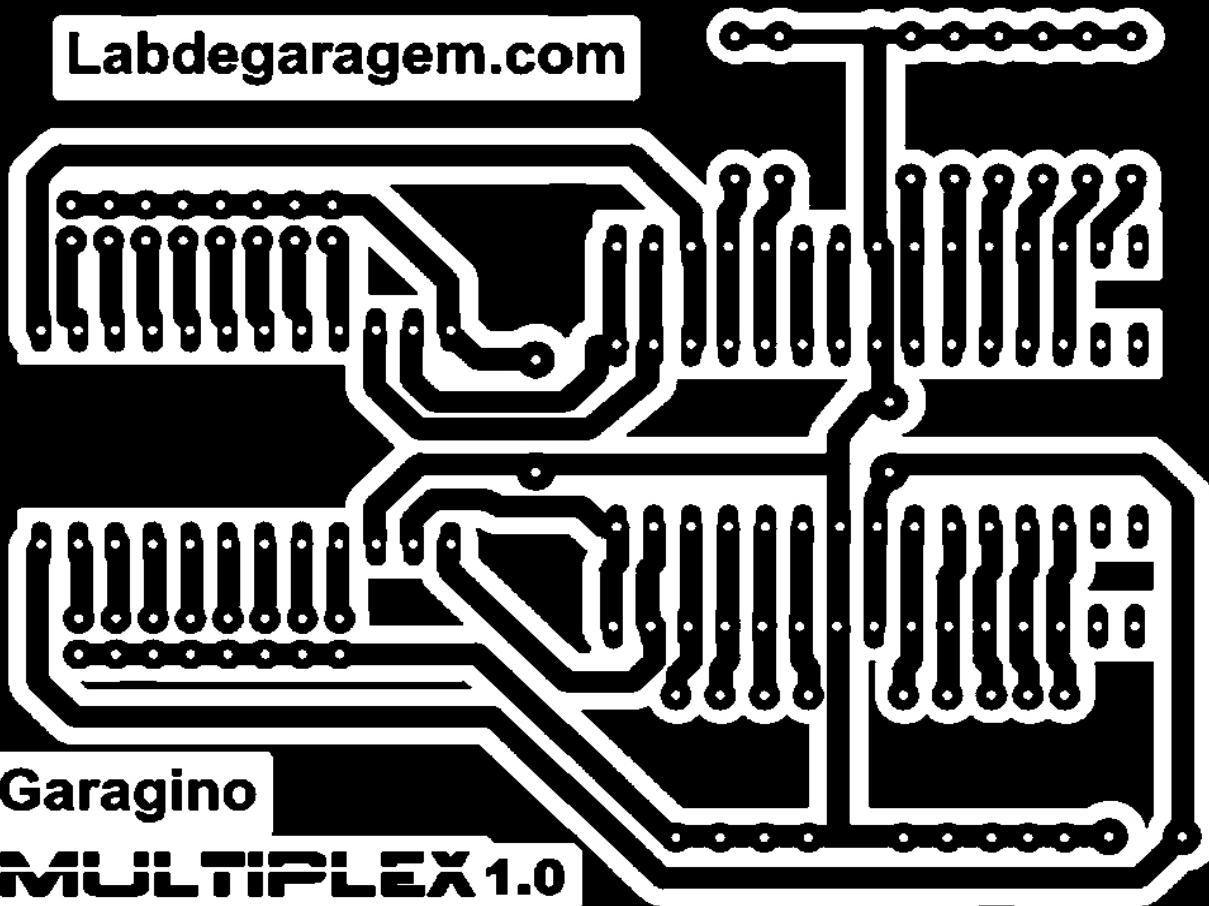
**Expansor de portas 74HC595 de 8 bits**



Expansor de portas 74HC595 de 64 bits

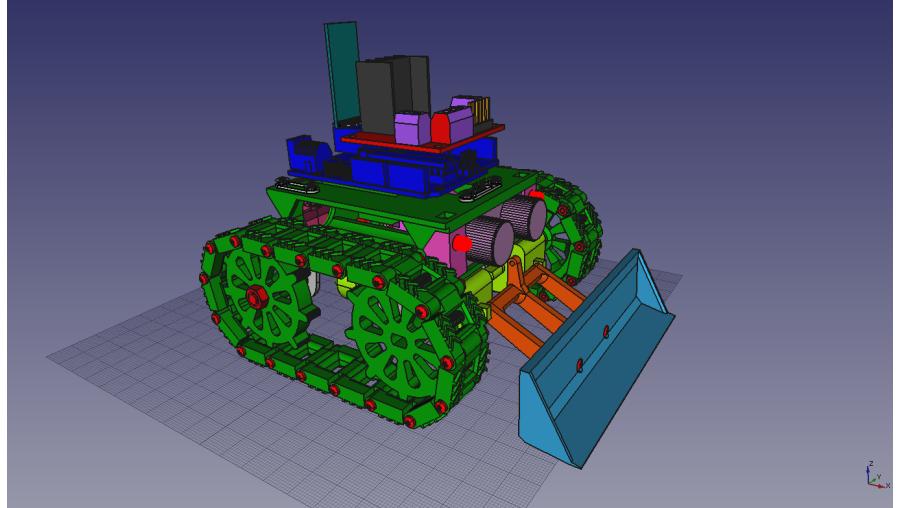
C Y B E R O U M . C O M

Labdegaragem.com

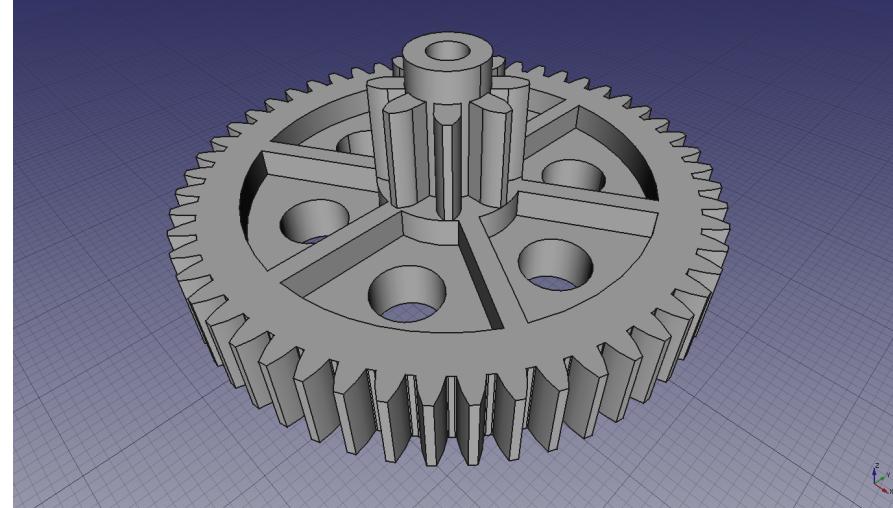


Garagino  
**MULTIPLEX 1.0**

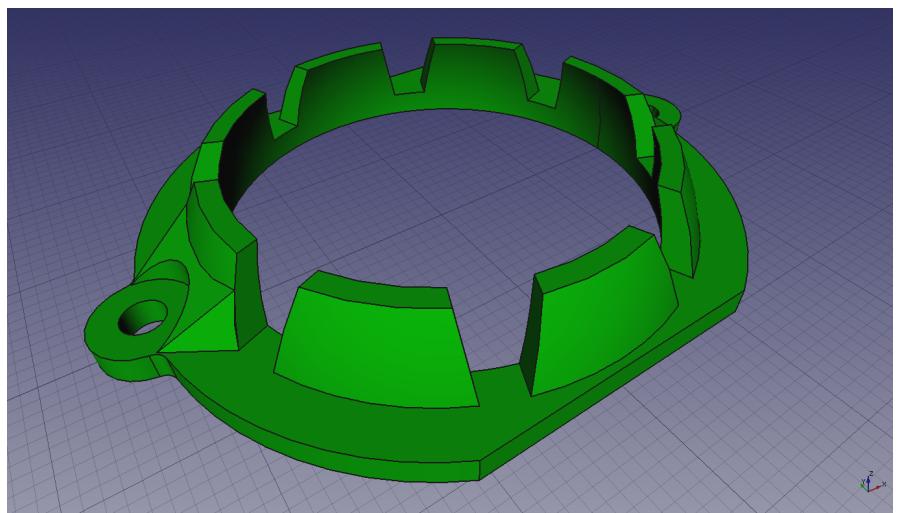
Shield expensor para placa Garagino



**Robô Educacional**



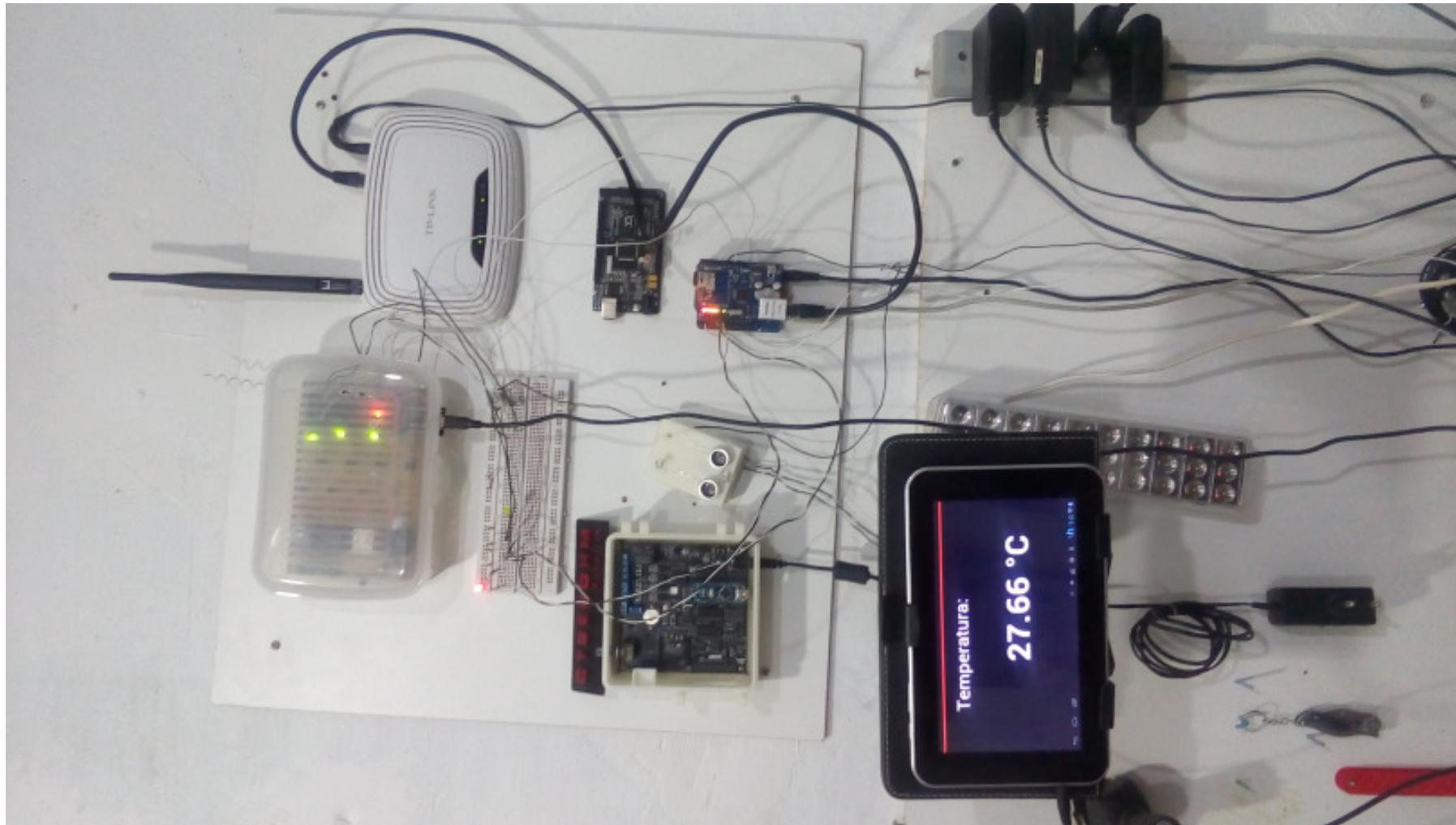
**Engrenagem**



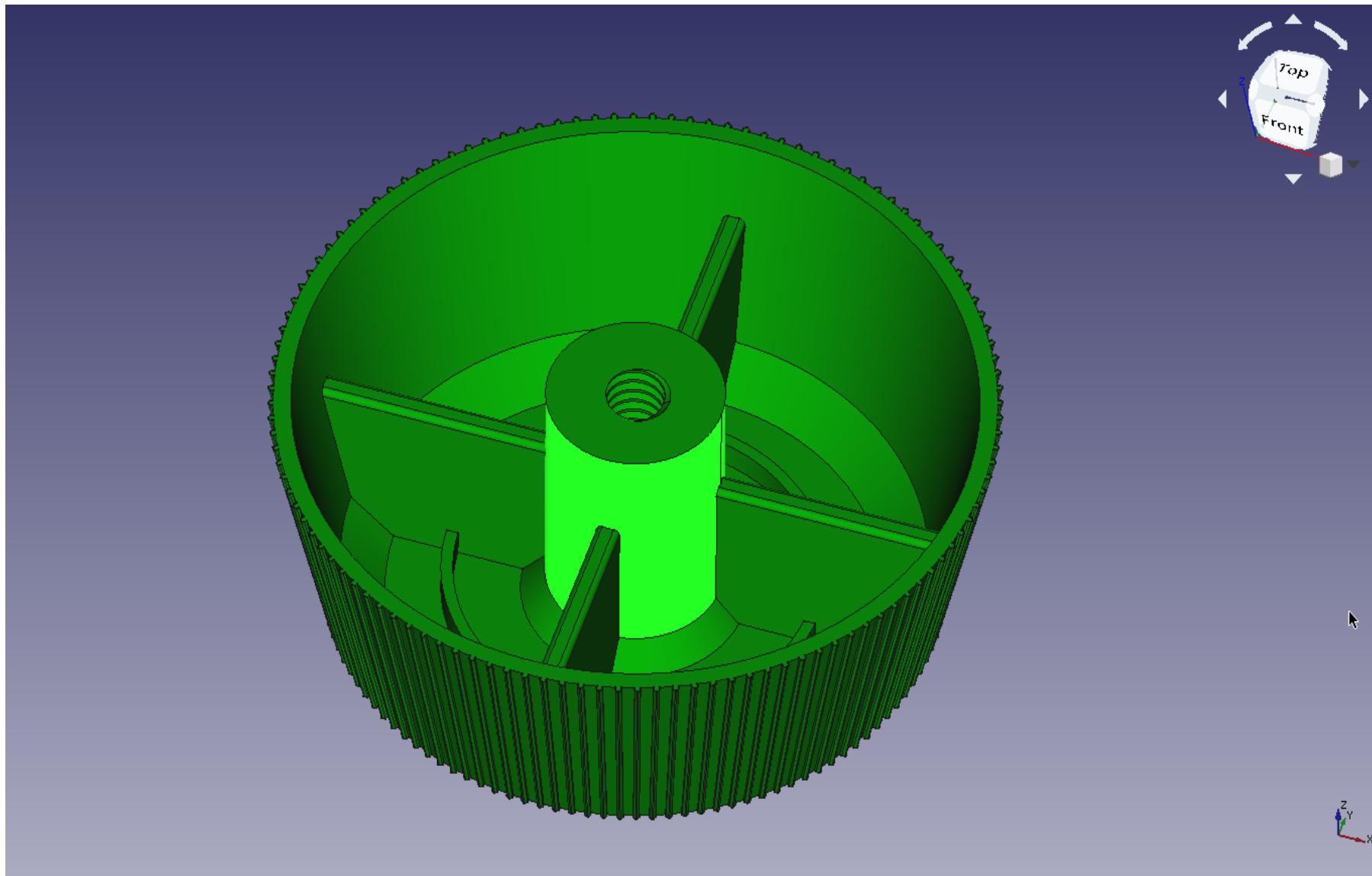
**Peça de reposição automotiva**

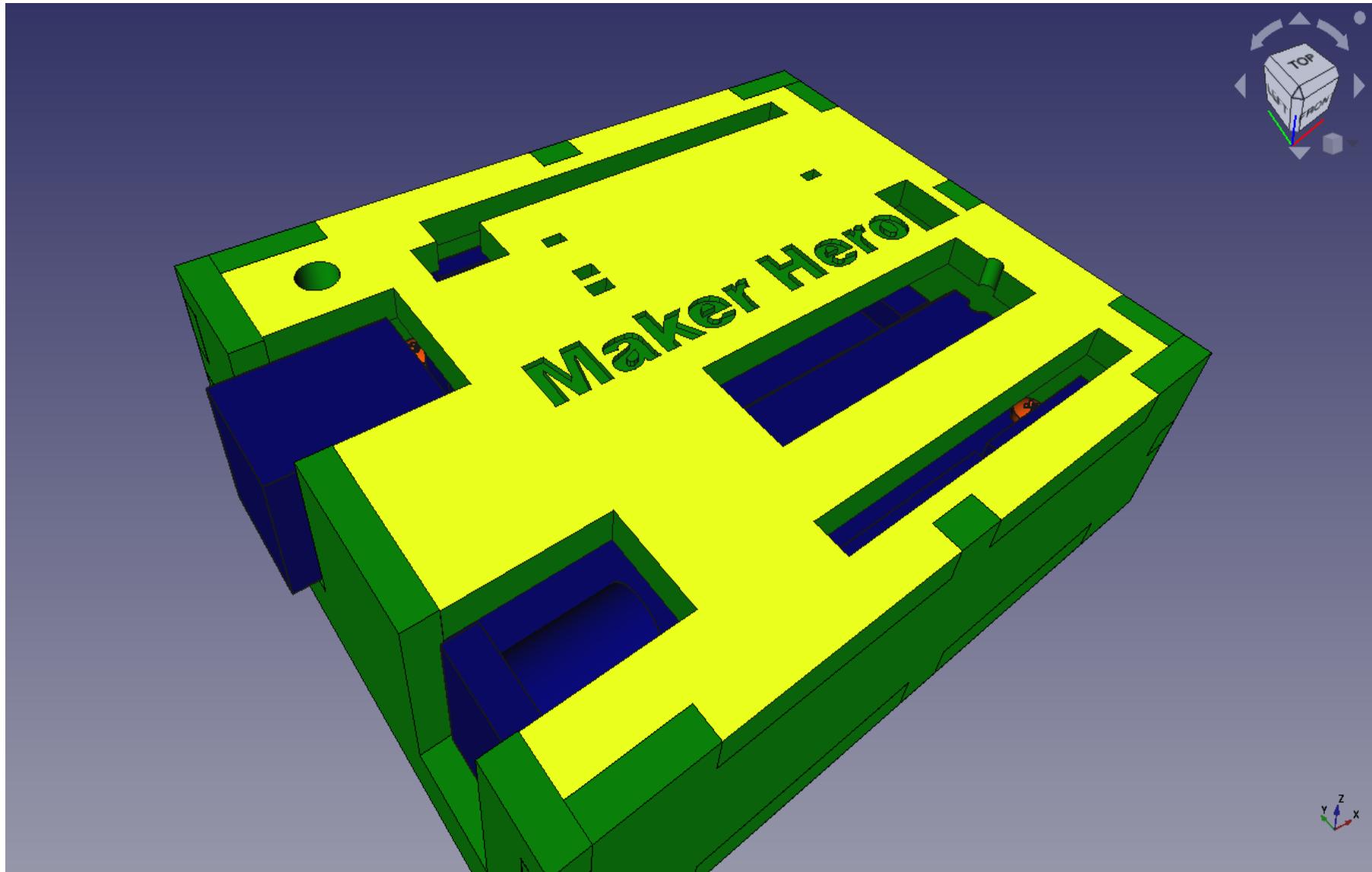


**Polia**



**Sistema de IoT com Arduino**





**Caixa de proteção para Arduino, parametrizada.**

Alexandre Aravecchia

## 6.1 Alimentação externa

Função de transistores:  
Alionamento de resistores.

L1  
12V  
2200mH

R1

✓ Verificação direta:  
✓ Verificar se o Arduino suporta  $I_B$ :  
 $I_B = \frac{I_C}{\beta}$

✓ Verificar a corrente  $I_{MAX}$  no coletor:  
 $I_C = \frac{V_{CC} - V_T}{R_C}$

✓ Calcular  $R_B$  diretamente:  
 $R_B = \frac{V_B * \beta * R_C}{V_{CC} - V_T}$

✓ Potência no emissor:  
 $P_E = (V_{CC} - V_T) * (I_C + I_B)$

Palestras e oficinas: Latinoware, Campus Party, FliSoL, FGSL, FILS, The Developers Conference.