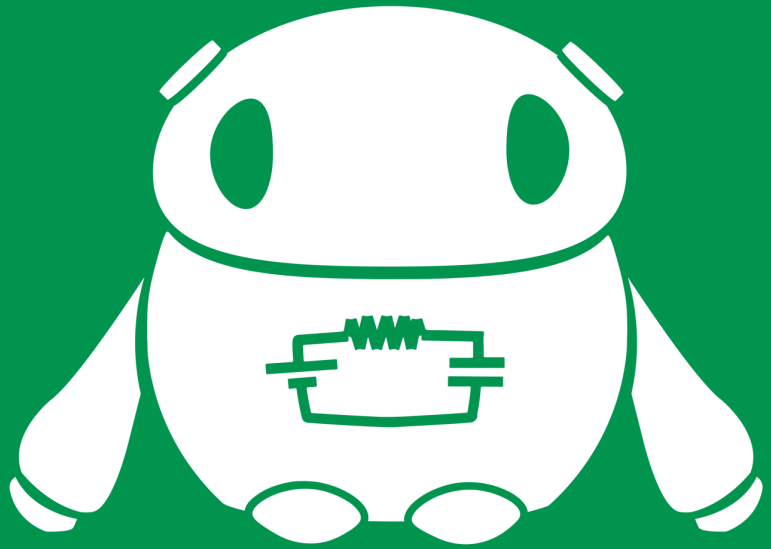
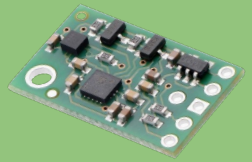


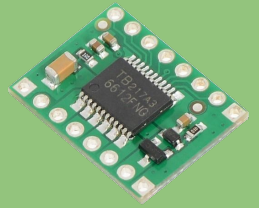
RoboCIn

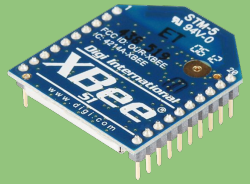
Construindo

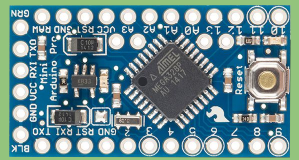
- Requisitos
  - Tamanho
    - cubo de 7,5 cm
  - Funcionalidades
    - movimentar
    - Receber dados

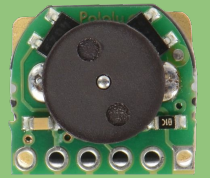
Materiais









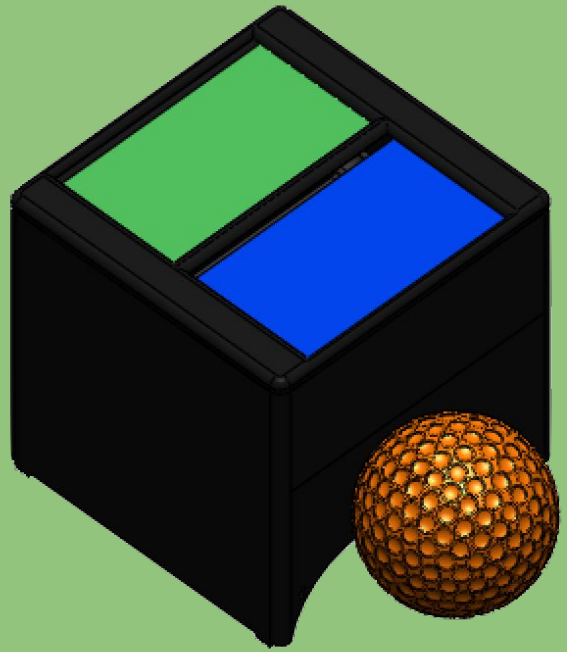


ROBÔCIN

Planejamento

- Organização x Tamanho
- Custo x Qualidade
- Potência x Velocidade
- Vida Útil x Eficiência

Planejamento

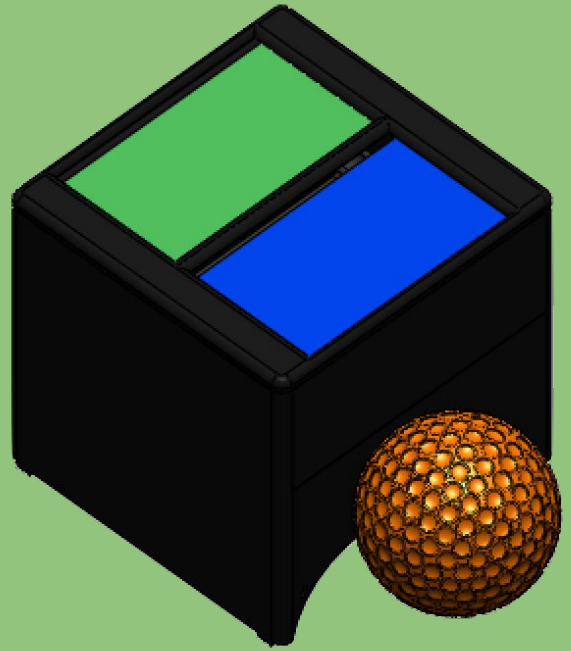


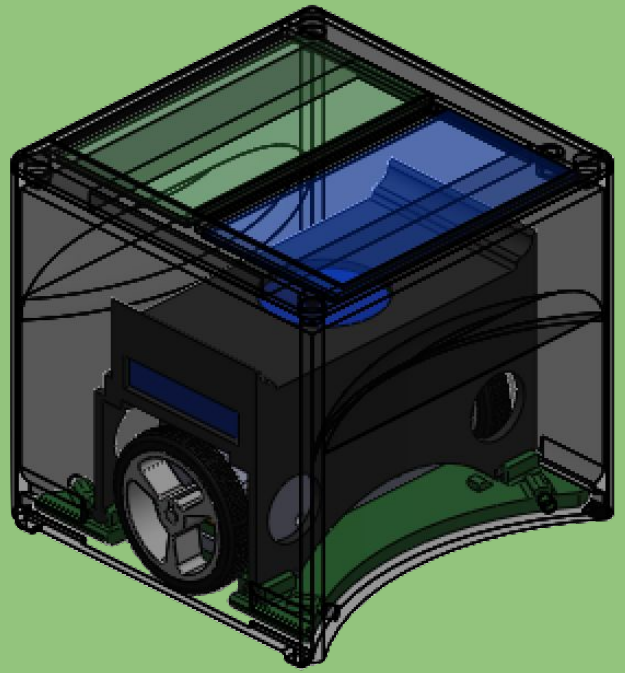
ROBÔCIN

Materiais

Spark Fun				
Item	**Preço**	**Link**	**Quantidade**	**Total**
xBee	US $22,95	https://www.spar	1	US $22,95
LED RGB SMD (com 10)	US $4,95	https://www.spar	0,2	US $0,99
Xbee Socket	US $1,00	https://www.spar	2	US $2,00
Magnetic ring	US $0,95	https://www.spar	10	US $9,50
Cristal 16mHz	US $0,95	https://www.spar	1	US $0,95
AtMega328 SMD	US $4,25	https://www.spar	1	US $4,25
6-pin Male Header 90 graus	US $0,95	https://www.spar	1	US $0,95
Total:				**US $41,59**

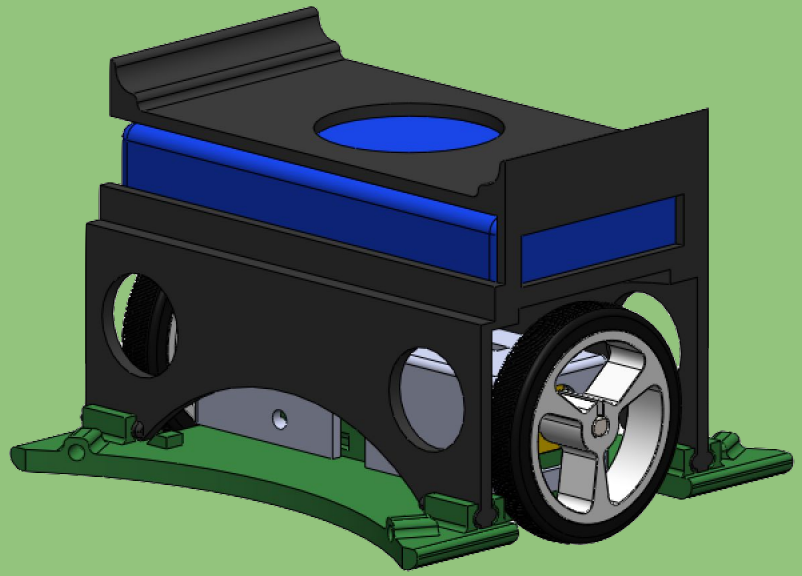
Mecânica

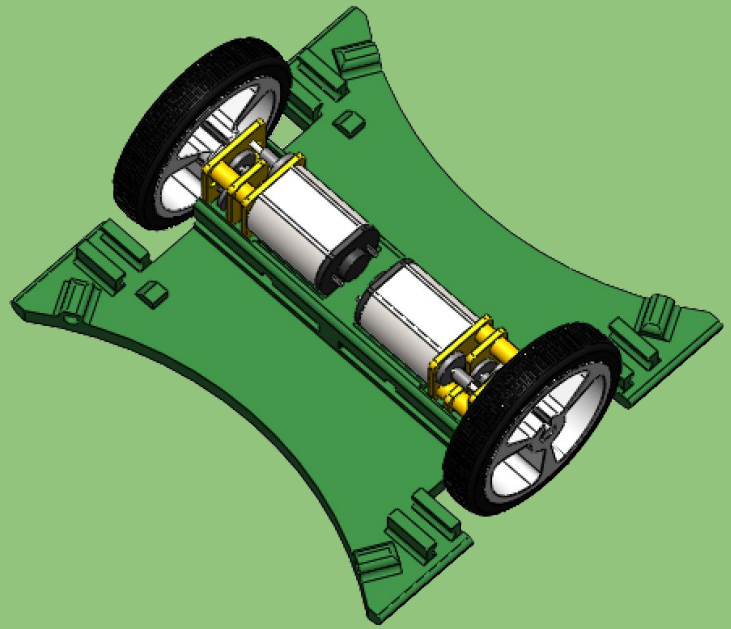




ROBÔCIN

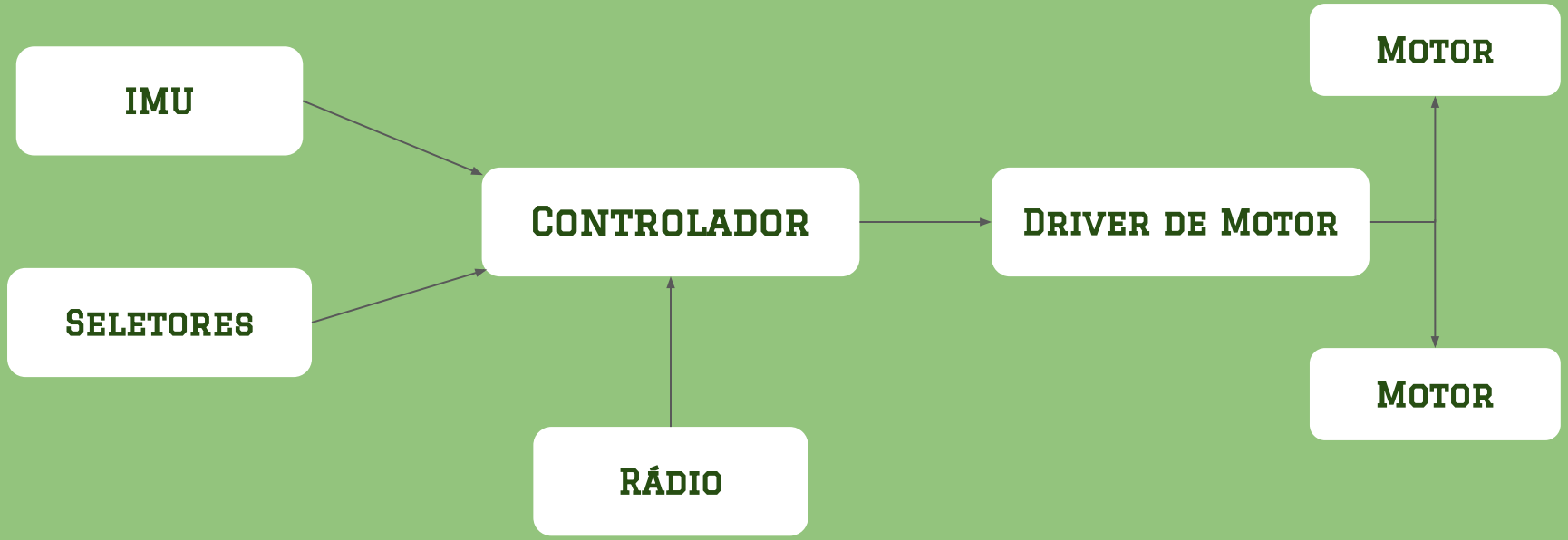
Mecânica





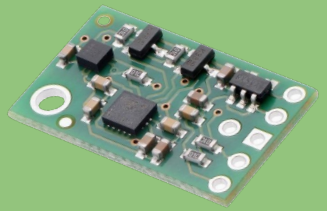
ROBÔCIN

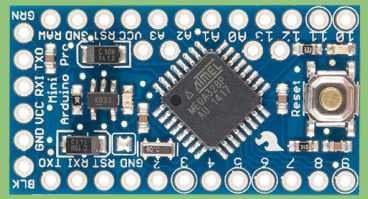
Circuito

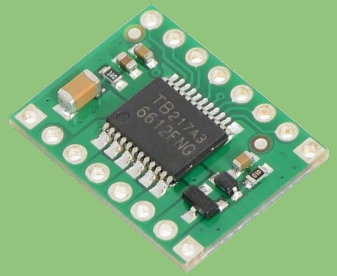


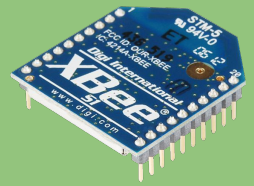
ROBÔCIN

Circuito









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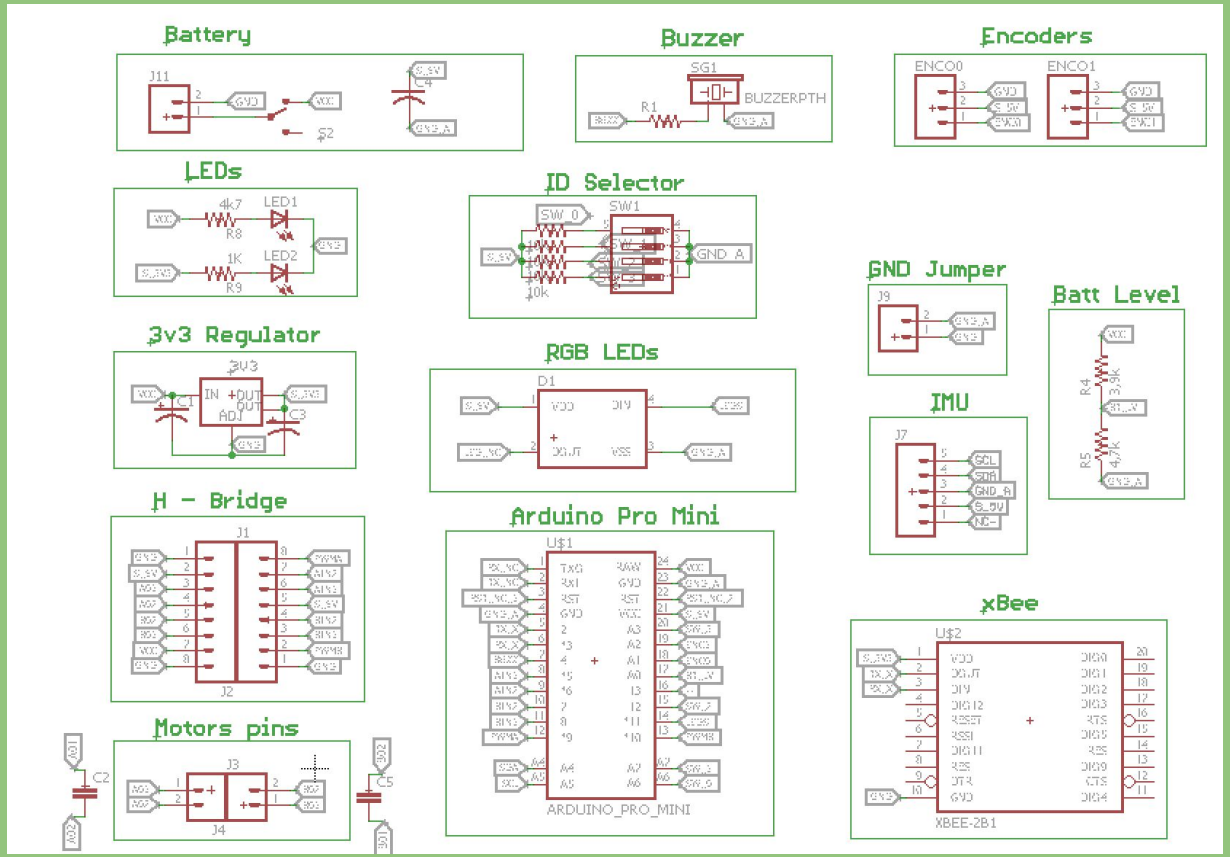
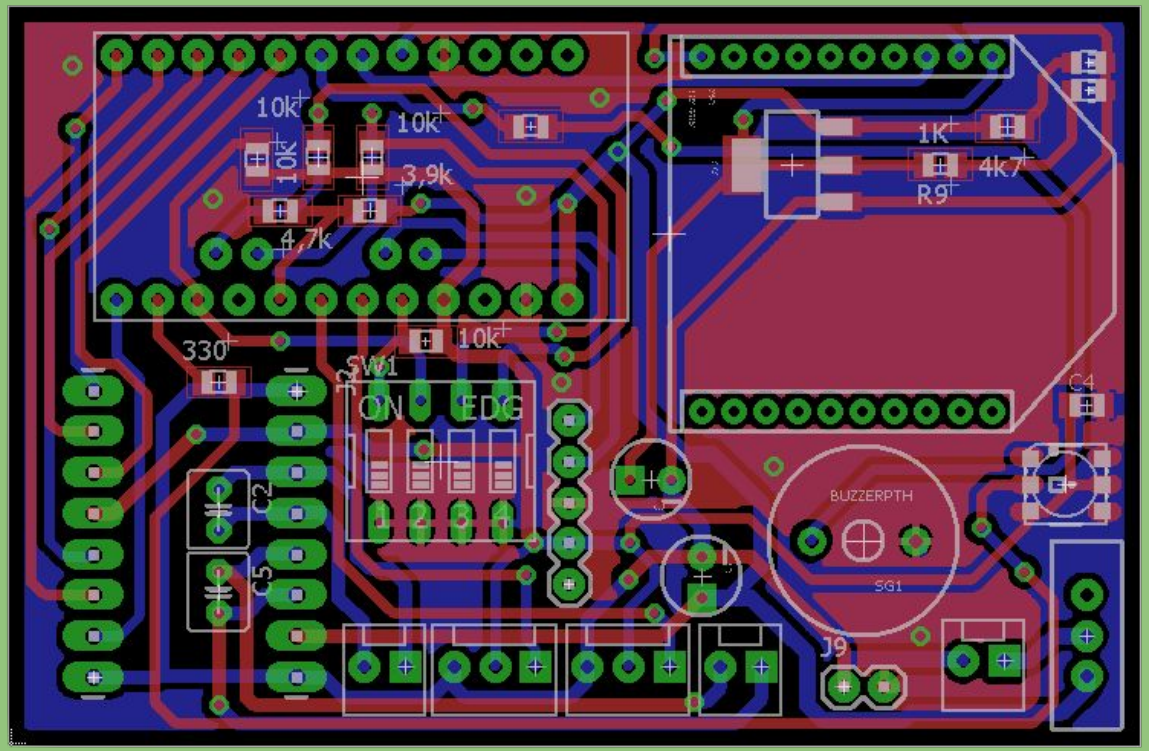
Circuito



ROBÔCIN

Circuito

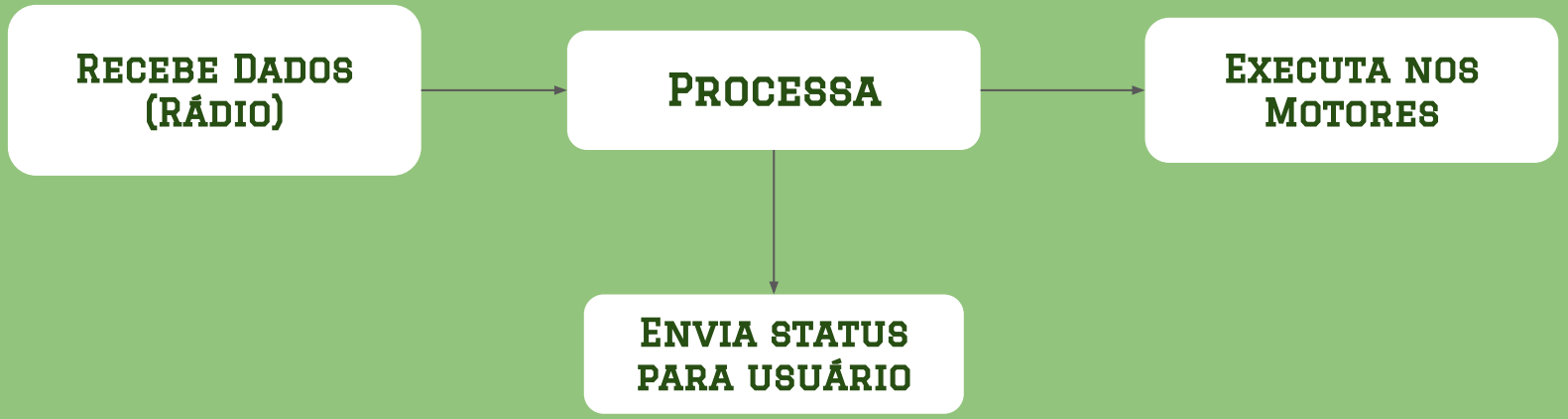


ROBÔCIN

Circuito

ROBÔCIN

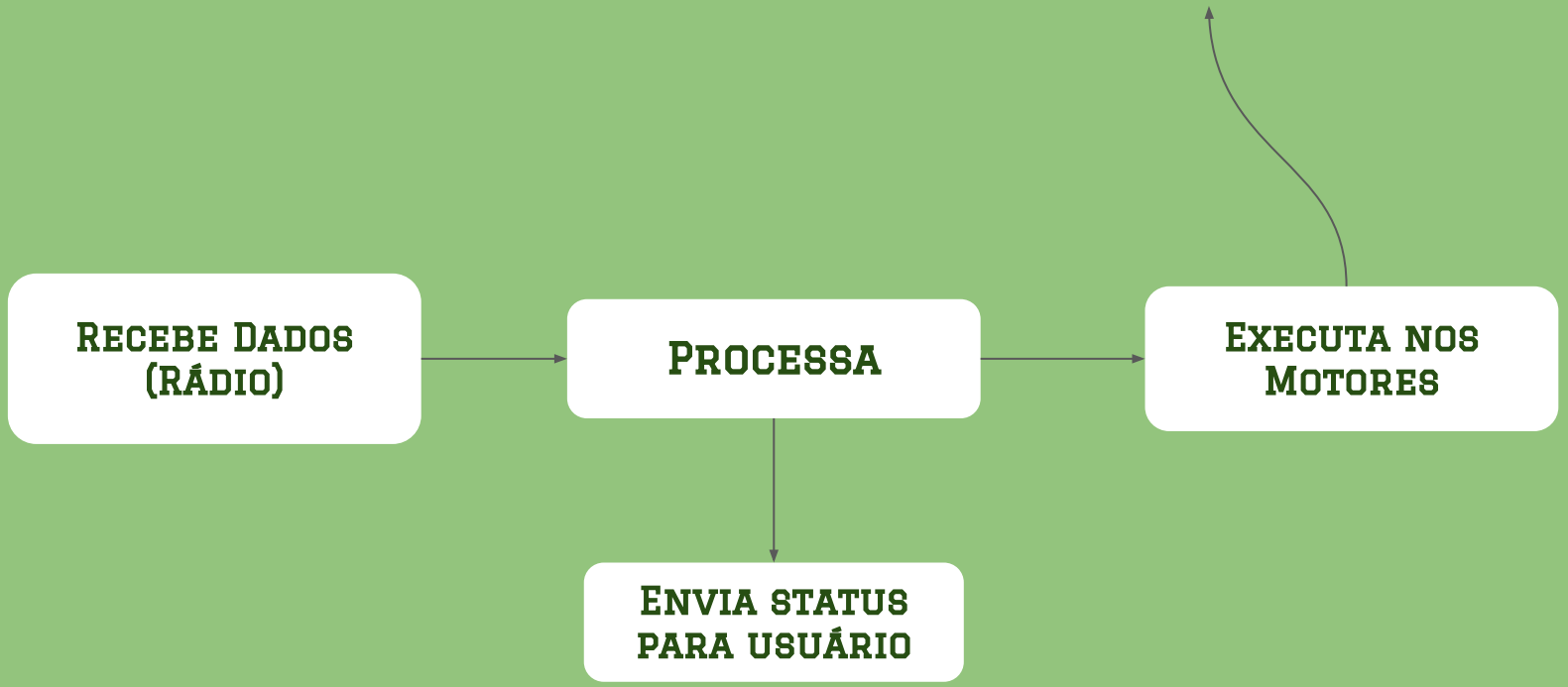
Software



ROBÔCIN

Software

Malha Aberta



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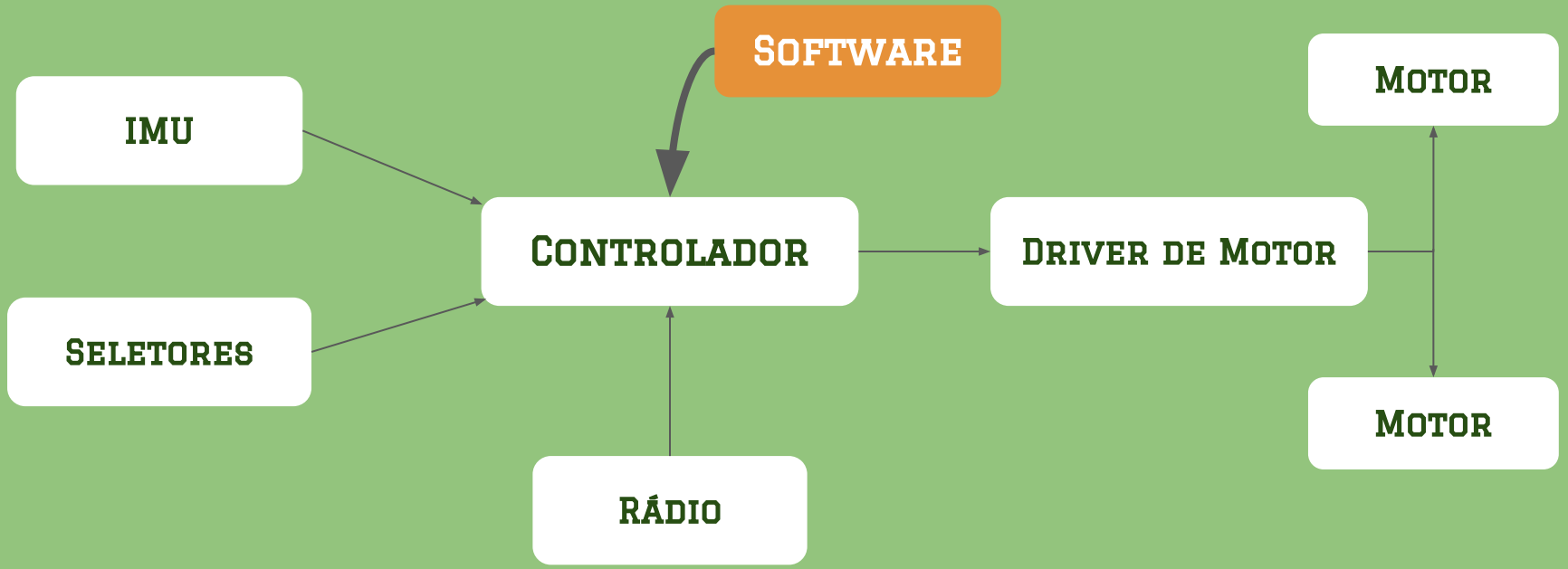
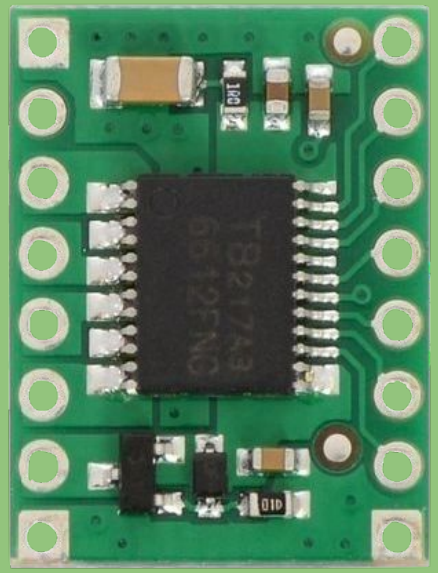
Circuito


Software
IMU
Seletores
Controlador
Rádio
Driver de Motor
Motor
Motor

Interface



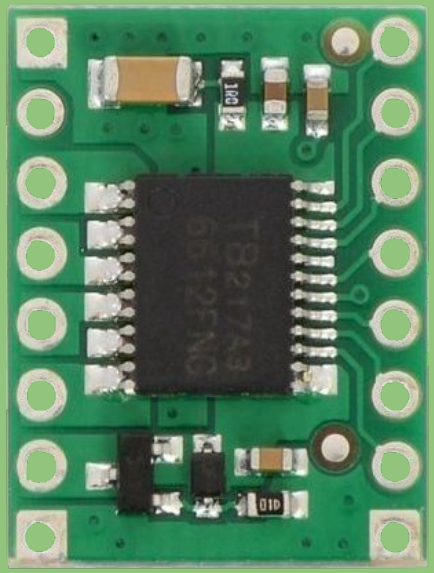
PWMA
AIN2
AIN1

BIN1
BIN2
PWMB

Velocidade (0 - 100)
Sentido (0 - 1)
Sentido (1 - 0)

ROBÔCIN

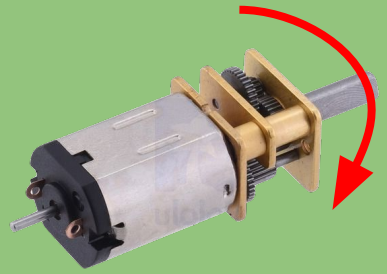
Interface



PWMA
AIN2
AIN1

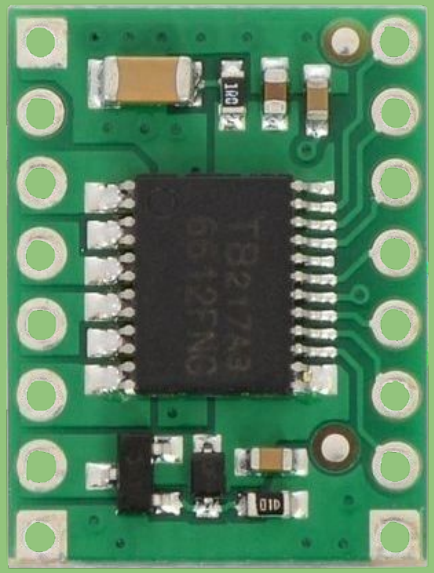
BIN1
BIN2
PWMB

Velocidade (50)
Sentido (0)
Sentido (1)



ROBÔCIN

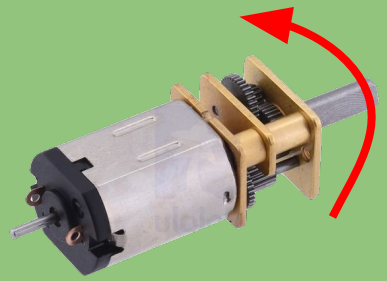
Interface



PWMA
AIN2
AIN1

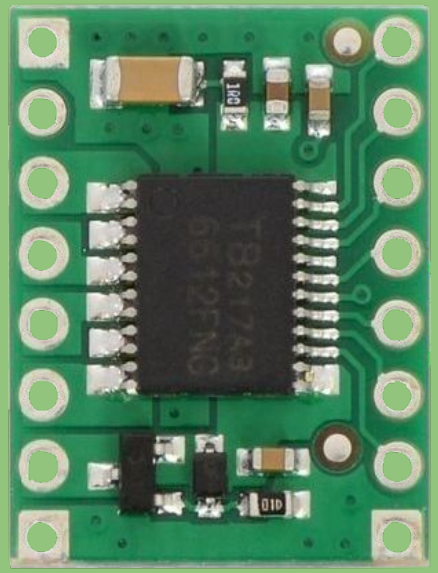
BIN1
BIN2
PWMB

Velocidade (50)
Sentido (1)
Sentido (0)



ROBÔCIN

Interface



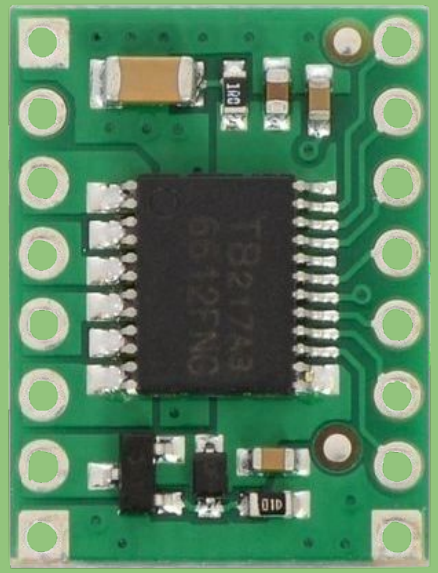
PWMA
AIN2
AIN1

BIN1
BIN2
PWMB

Velocidade (0)
Sentido (1)
Sentido (0)

ROBÔCIN

Interface



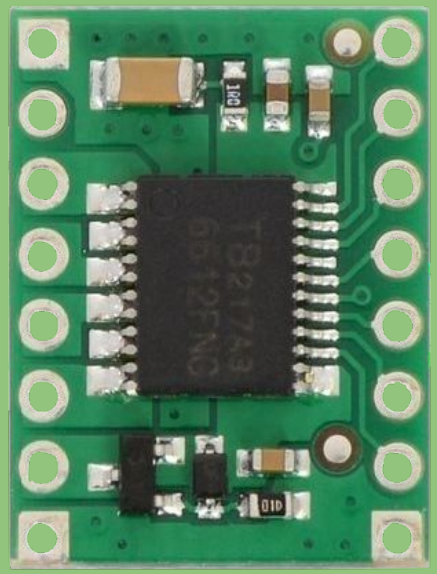
PWMA
AIN2
AIN1

BIN1
BIN2
PWMB

Velocidade (50)
Sentido (0)
Sentido (0)

ROBÔCIN

Coding



PWMA → Pino 9

AIN2 → Pino 6

AIN1 → Pino 5

BIN1 → Pino 8

BIN2 → Pino 7

PWMB → Pino 10

Obs: Usar função setPinValue(pino, valor);

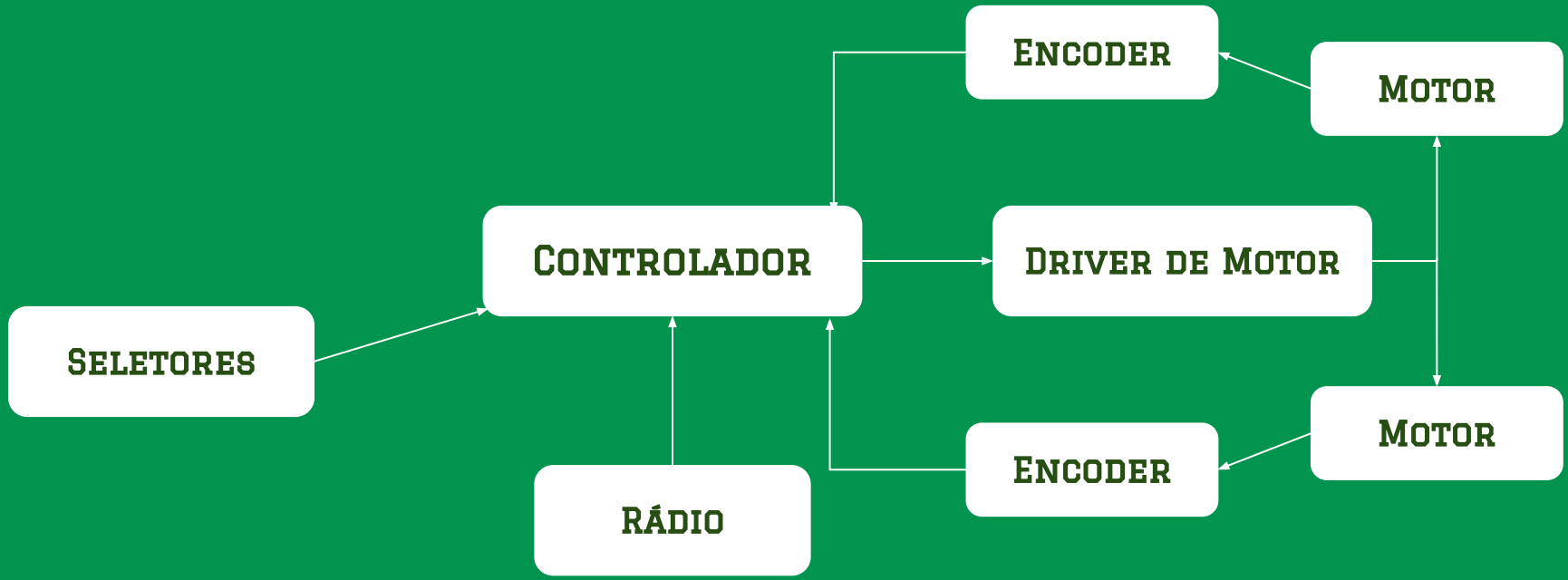
ROBÔCIN

2017...

- Melhorar Confiabilidade da comunicação

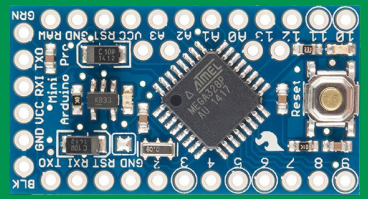
- Trabalhar com malha fechada
  - Utilizando todos sensores disponíveis

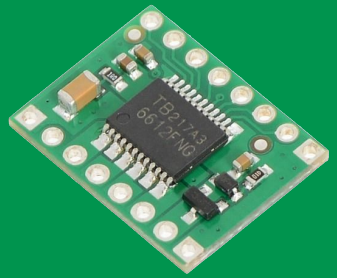
2017

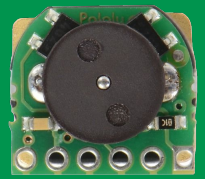


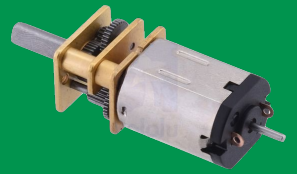
ROBÔCIN

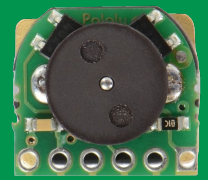
2017

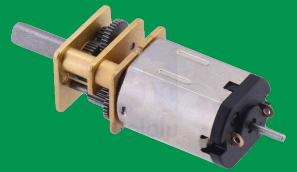


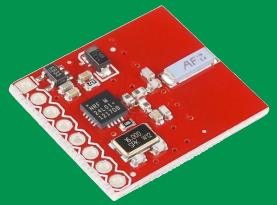






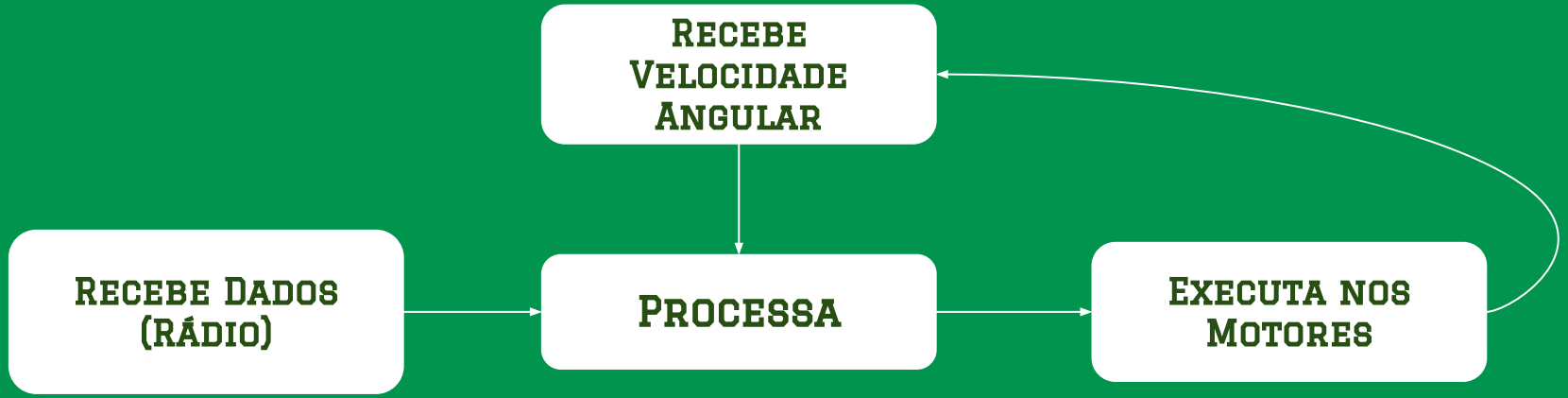




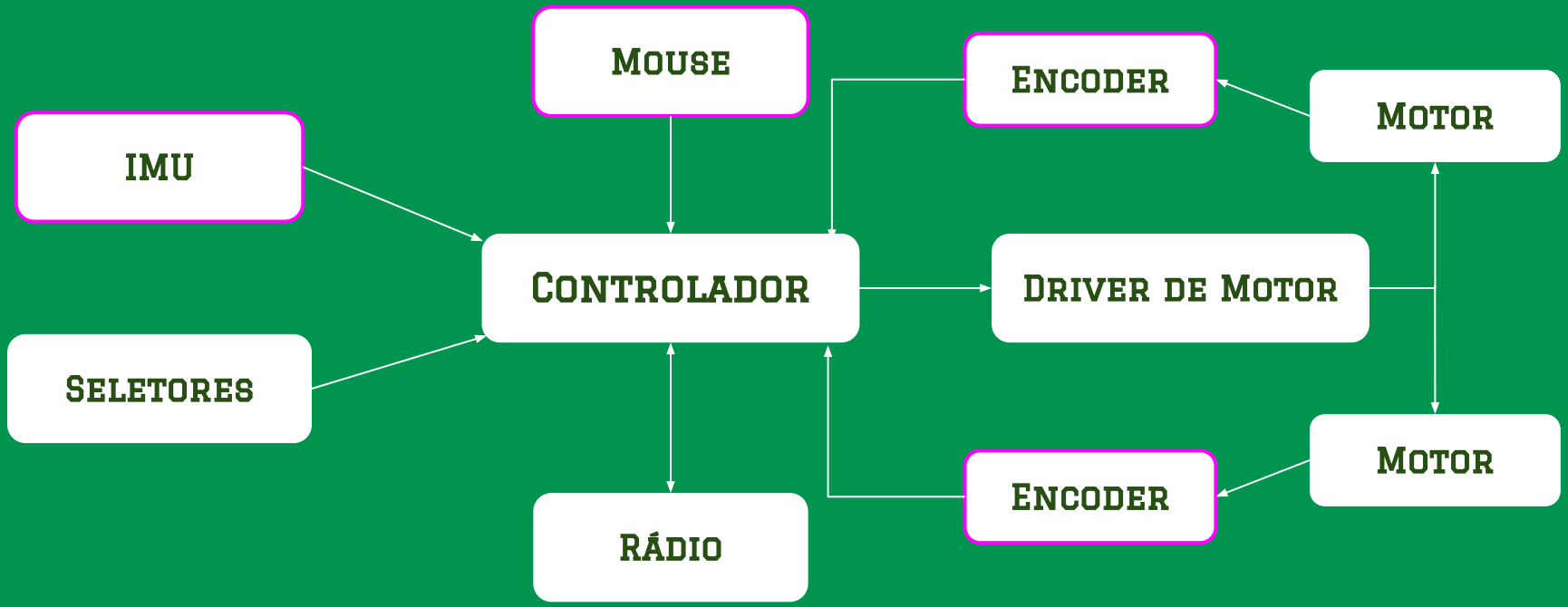


ROBÔCIN

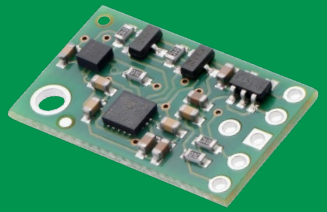
2017

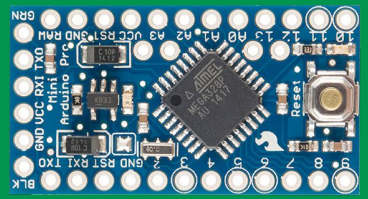

Recebe Velocidade Angular
Recebe Dados (Rádio)
Processa
Executa nos Motores

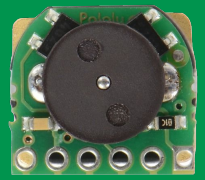
2018

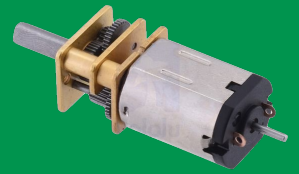

Mouse
Encoder
Motor
IMU
Controlador
Driver de Motor
Seletores
Motor
Encoder
Rádio

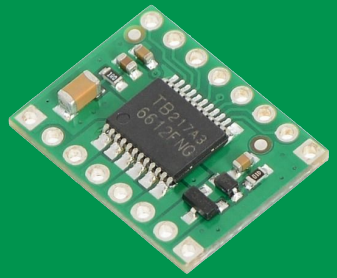
2018

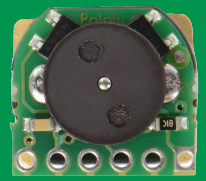


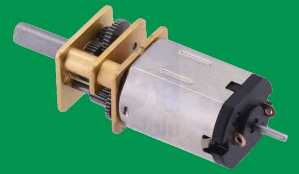


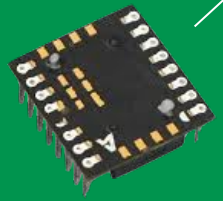


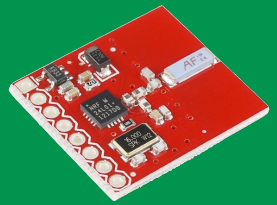












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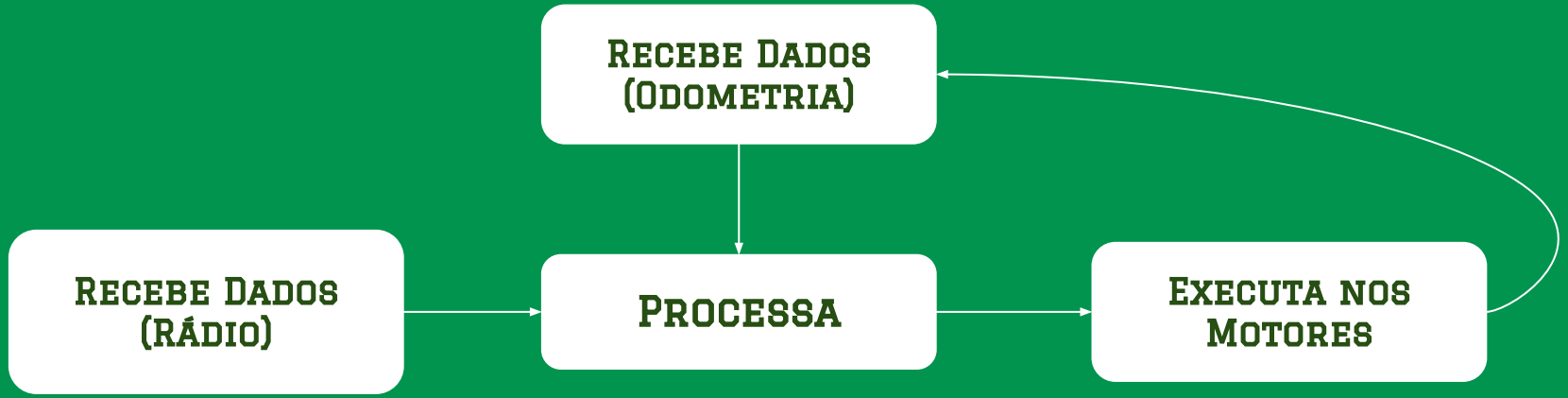
Recebe Dados (Odometria)
Recebe Dados (Rádio)
Processa
Executa nos Motores

Obrigado!

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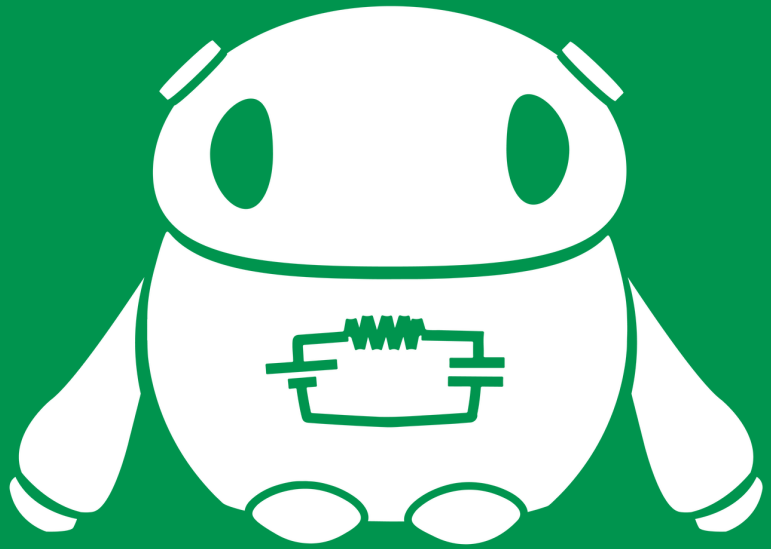

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