Nocom-Pila BumpGo

Nocom-Pila

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BumpGo

State machine:

- Go forward.
- Bumper.
- Stop.
- Go backward.
- Stop.
- Turn left.
- Go forward again.

Implmentations

In case that bumper crashed, kobuki is going to go back, stop, turn left and go forward again.

BumpGo

Sensor used:

Bumper

This sensor measure 1 while it is crashed with object and measure 0 when it is released.

BumpGo advanced

State machine:

- Go forward.
- Bumper.
- Stop.
- Go backward.
- Stop.
- Turn left or right.
- Go forward again.

Turning sense

We added 2 turning sense. This is,in case right bumper crash, kobuki have to turn to left sense, and vice versa.

Leds

We implemented led1 and led2 to this BumpGo version. While kobuki is turning to the left sense, led1 is lighting. Same with right sense with the led2.

BumpGo advanced

Sensor used

Bumper

This sensor measure 1 while it is crashed with object and measure 0 when it is released.

BumpGo Laser

States machine

- Go forward.
- Rplidar or bumper.
- Stop.
- Go backward while kobuki can.
- Stop.
- Turn left or right.
- Go forward again.

Turning Sense

We added 2 turning sense. This is,in case that rplidar measure a distance lower than our min distance setted, and its come from left side sweep , kobuki have to turns to right sense, and vice versa. In case, that measurement comes from forward kobuki turn to left sense by default.

Leds

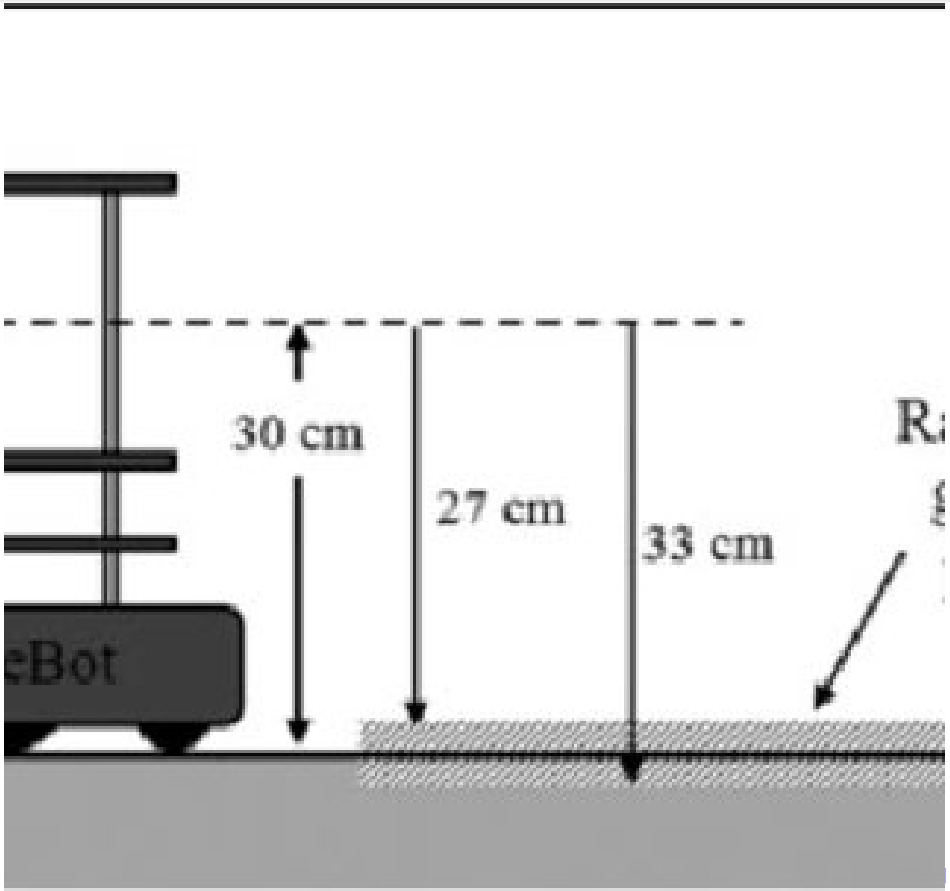
We implemented led1 and led2 to this BumpGo version. While kobuki is turning to the left sense, led1 is lighting. Same with right sense with the led2.

Security system

In case that kobuki is going backwards to change his direction, it will go backwards as long as nothing is close behind. In case there is something behind it, it will stop going backwards and changes to the next state.

Bumper

In case that something forward is bellow rpilidar, it is not going to be measure it. Due to this, we added bumper sensor to measure it.



BumpGo Laser

Sensors used

Bumper

This sensor measure 1 while it is crashed with object and measure 0 when it is released.

Rplidar

This sensor measure 360 degrees at a range of 16 meters.

Contributors

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The End