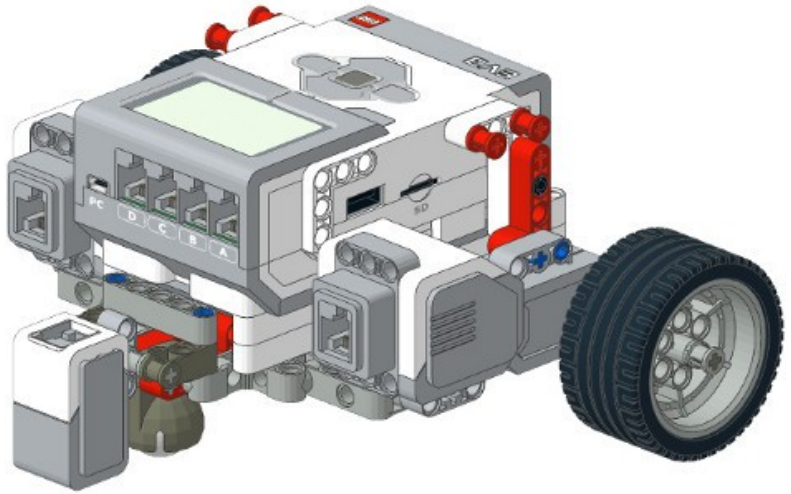
LEGO mindstorms EV3

Functions / My Blocks



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Useful Functions / My Blocks

- Makes your programming easier
- Less trial and error
- Neater and more understandable programs

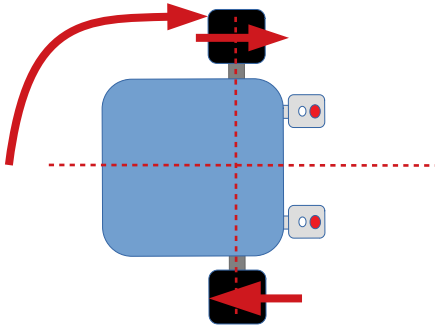
Which is better?

- Prepare My Blocks
  - 5 Sessions preparations
  - Complete 2 missions per session

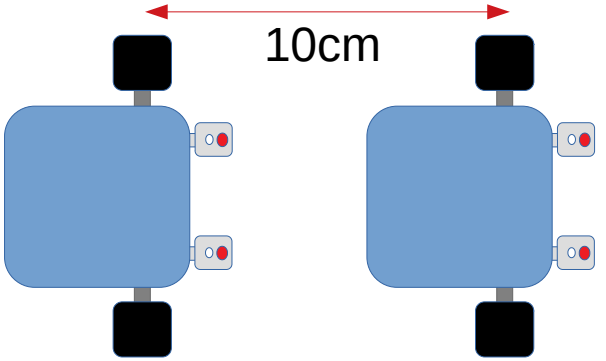
- No My Blocks
  - 0 Sessions preparations
  - 2 Sessions to complete one mission

Useful My Blocks (Gyro)

Functions	Remarks
Left Turn	Most useful functions! Enables your robot to turn accurately.
Right Turn	
Gyro Move (cm)	Enables your robot to drive straight for a certain distance.
Gyro Move till (White / Black)	Enables your robot to drive straight until it sees white or black. More accurate than cm.



Right Turn

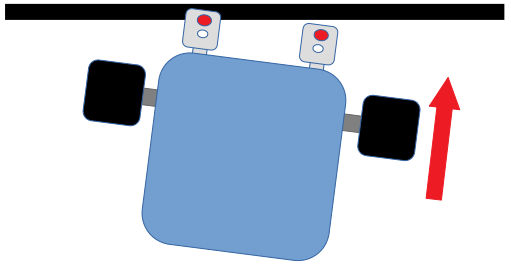


Gyro Move (cm)

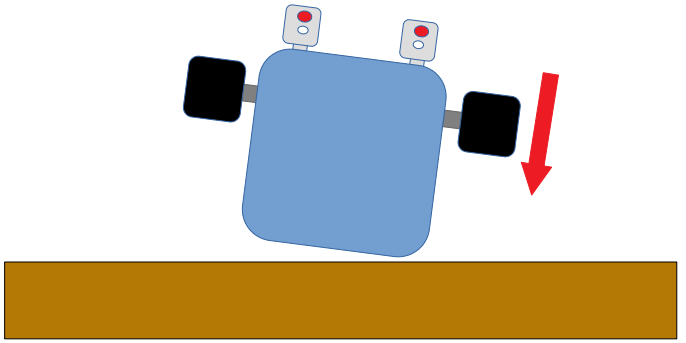
Useful My Blocks (Alignment)

Functions	Remarks
Align to line	Ensure the robot direction is correct by aligning to the black lines on the playfield.
Align to wall	Same as above, but aligns by pushing against the wall.

The gyro is pretty accurate, but will accumulate slight errors after running for a while. Alignment can be important if the robot is going for a long run, but not so much if the robot is only doing short runs.



Aligning to line



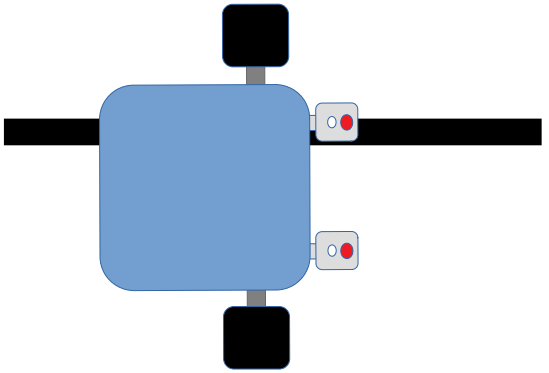
Aligning to wall

Useful My Blocks (Line Follow)

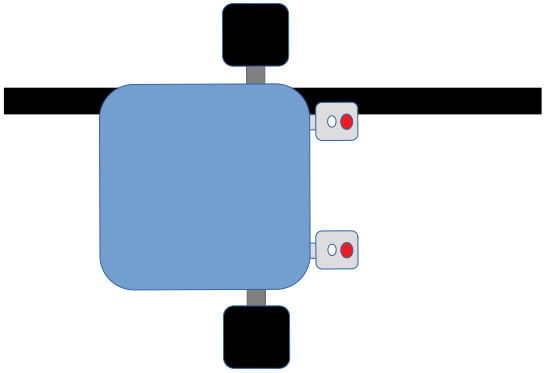
Functions	Remarks
Left Sensor Left Side	Use the left color sensor, follow the left side of the line
Left Sensor Right Side	Ditto, but follow the right side of the line
Right Sensor Left Side	Using the right sensor
Right Sensor Right Side	Should be obvious

Every line follow should have versions for till cm / white / black

A lot of work, and much less useful than the gyro My Blocks.



Left Sensor Left Side



Left Sensor Right Side

Useful My Blocks (Summary)

Importance	Importance
Most Important!	Gyro Turn
	Gyro Move (cm)
Medium Importance	Gyro Move till (White / Black)
	Alignment
Low Importance	Line Follow

Alignment is less important if you’re only doing short runs.

Line Follow may be useful in some years, but gyro is important every year.

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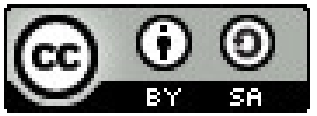

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