

Visual Programming Language for Thymio II Robot

<http://thymio.org>

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Goal

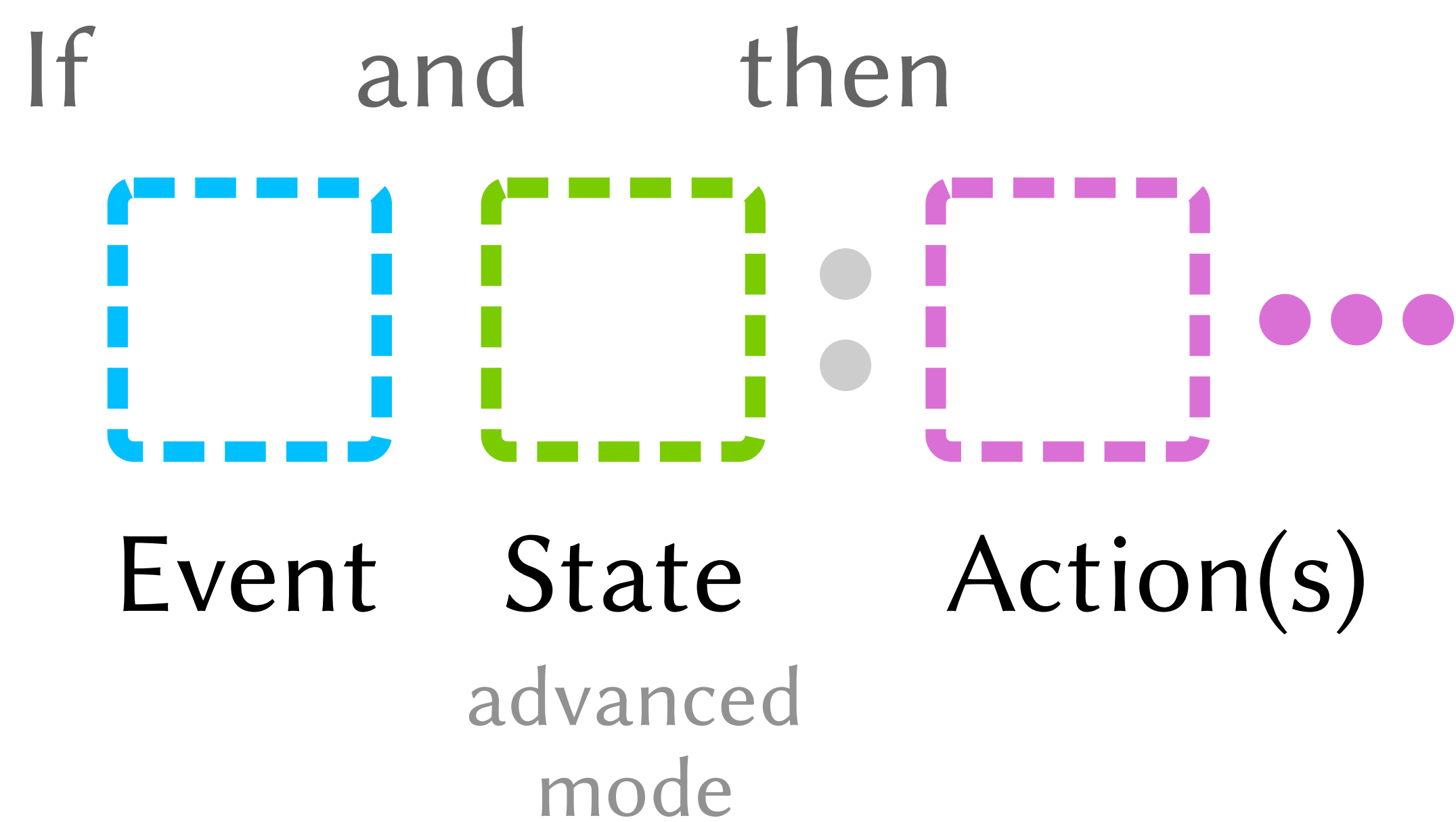


Learn programming with a robot

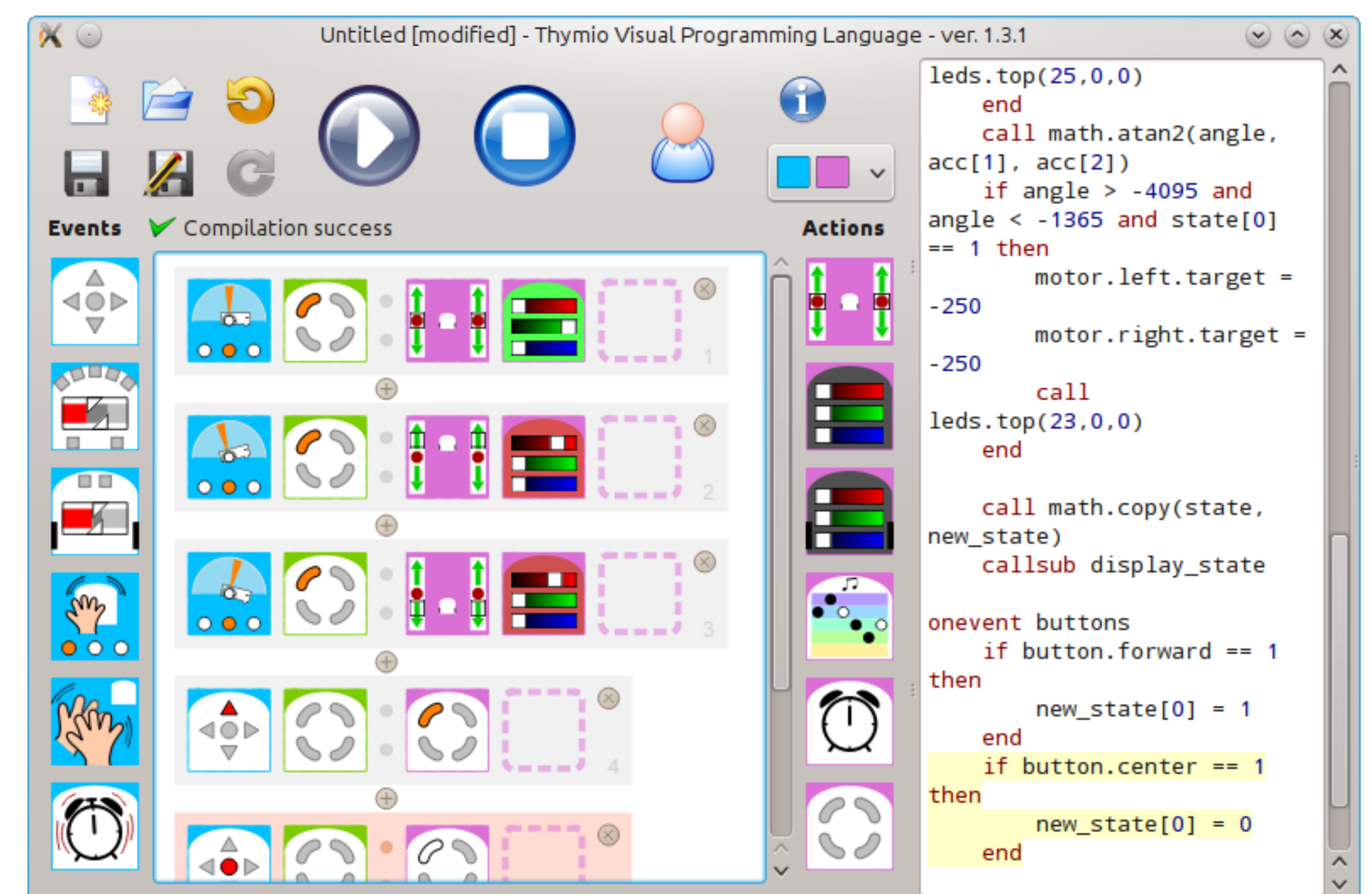
Principles

- Lower floor
- Wide walls
- Simplicity
- Tinkerability
- Support for self-learning

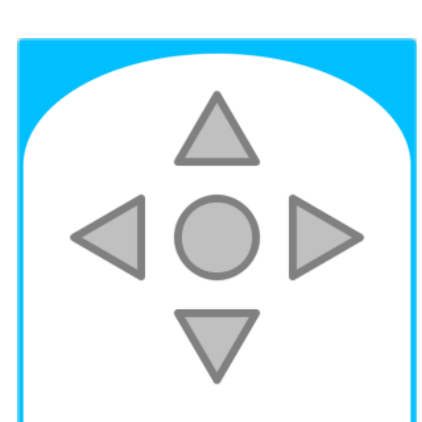
Event-based



Interface

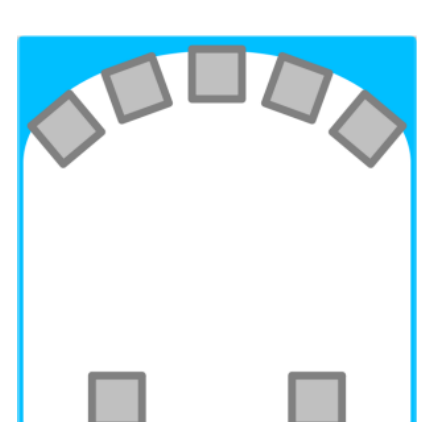


Available Events



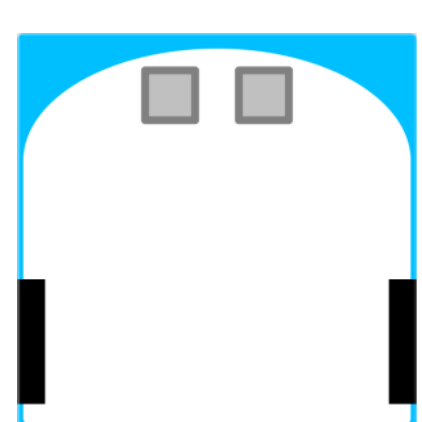
Buttons touched

grey: ignore the button, red: must be touched



Obstacle detectors

grey: ignore detector, red: object close, white: object far



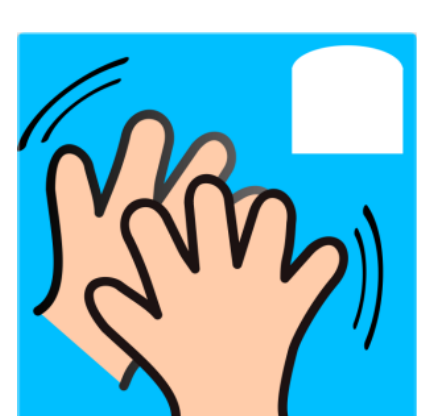
Ground detectors

grey: ignore detector, red: ground, white: no ground



Robot tapped

Robot felt a shock.



Hand clapped

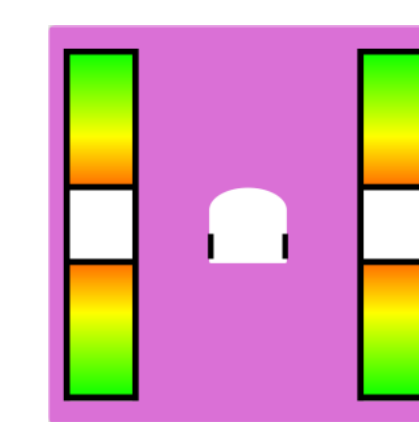
Robot heard a loud noise.



Timer elapsed

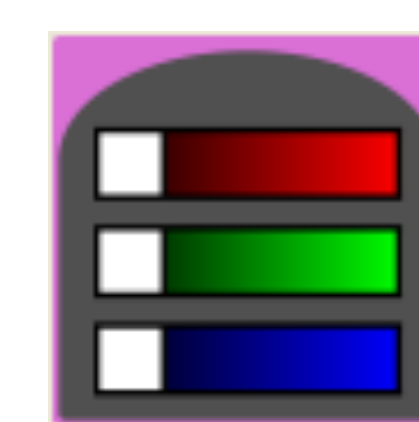
The timer has timed out.

Available Actions



Set motor speeds

Set left and right motor and wheel speeds.



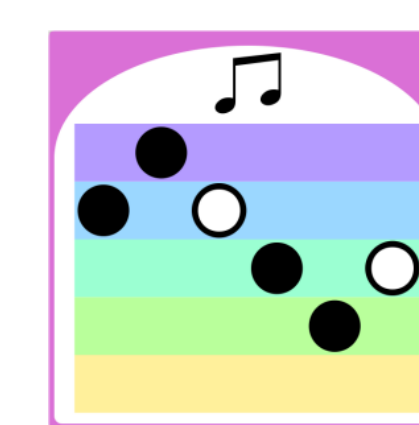
Set top colour

Set a mixture of red, green and blue to robot's top.



Set bottom colour

Set a mixture of red, green and blue to robot's bottom.



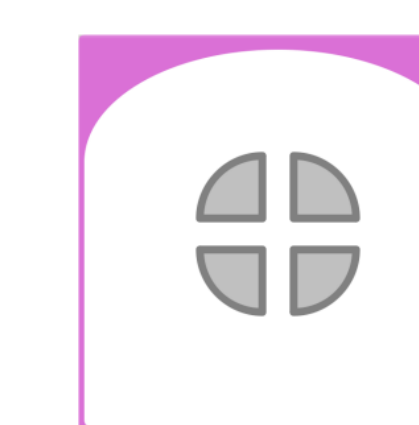
Play music

Choose pitch, white twice the duration of black.



Start timer

Timer elapsed event will occur after some duration.



Set robot's state

Set the 4-bit internal state of the robot.