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1 -----
2 --
3 --          GNAT RAVENSCAR for NXT          --
4 --          Copyright (C) 2011, AdaCore    --
5 --
6 -----
7
8 -- Abstract data type for basic motors without speed regulation or
9 -- acceleration smoothing. Simple NXT motors will be derived from this type,
10 -- as will RCX motors.
11
12 pragma Restrictions (No_Streams);
13
14 with NXT.Motor_Controls; use NXT.Motor_Controls;
15
16 package NXT.Motors is
17   pragma Elaborate_Body;
18
19   type Abstract_Motor is abstract tagged limited private;
20
21   function Id (This : Abstract_Motor) return Motor_Id;
22
23   procedure Set_Power (This : in out Abstract_Motor;
24                       Power : Power_Percentage);
25
26   function Current_Power (This : Abstract_Motor) return Power_Percentage;
27
28   procedure Forward (This : in out Abstract_Motor);
29
30   procedure Backward (This : in out Abstract_Motor);
31
32   procedure Reverse_Direction (This : in out Abstract_Motor);
33
34   function Moving (This : Abstract_Motor) return Boolean;
35
36   procedure Stop (This : in out Abstract_Motor;
37                 Apply_Brake : Boolean := False);
38
39 private
40
```

```
41     type Abstract_Motor is abstract tagged limited
42         record
43             Id      : Motor_Id;
44             Motion  : Motion_Modes;
45             Power   : Power_Percentage;
46         end record;
47
48     procedure Update_State (This : in out Abstract_Motor; Mode : Motion_Modes);
49
50 end NXT.Motors;
51
```