―――――――――――――― MODULE *semaphore* ――――――――――――――

VARIABLE *color*

$TypeOK \triangleq color \in \{\,\text{"red"},\ \text{"green"},\ \text{"yellow"}\,\}$

$Init \triangleq color = \text{"red"}$

$TurnGreen \triangleq$
  $\wedge\ color = \text{"red"}$
  $\wedge\ color' = \text{"green"}$

$TurnYellow \triangleq$
  $\wedge\ color = \text{"green"}$
  $\wedge\ color' = \text{"yellow"}$
$TurnRed \triangleq$
  $\wedge\ color = \text{"yellow"}$
  $\wedge\ color' = \text{"red"}$

$Next \triangleq$
  $\vee\ TurnGreen$
  $\vee\ TurnYellow$
  $\vee\ TurnRed$