

**MACHINE** M0

**VARIABLES**

red\_light  
green\_light

**INVARIANTS**

inv1 :  $red\_light \in \text{BOOL}$   
inv2 :  $green\_light \in \text{BOOL}$   
inv3 :  $green\_light = \text{TRUE} \Leftrightarrow red\_light = \text{FALSE}$

**EVENTS**

**Initialisation**

begin  
act1 :  $red\_light := \text{FALSE}$   
act2 :  $green\_light := \text{TRUE}$   
end

**Event**  $green\_to\_red \hat{=}$

when  
grd1 :  $green\_light = \text{TRUE}$   
then  
act1 :  $red\_light := \text{TRUE}$   
act2 :  $green\_light := \text{FALSE}$   
end

**Event**  $red\_to\_green \hat{=}$

when  
grd1 :  $red\_light = \text{TRUE}$   
then  
act1 :  $green\_light := \text{TRUE}$   
act2 :  $red\_light := \text{FALSE}$   
end

**END**