

An Event-B Specification of Machine
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MACHINE Machine

VARIABLES

amount amount feed in
fee total amount needed

INVARIANTS

inv1 : $amount \in \mathbb{N}$
inv2 : $fee \in \mathbb{N}$

EVENTS

Initialisation

begin
 act1 : $amount := 0$
 act2 : $fee := 230$
end

Event *insertCoin* $\hat{=}$

any
 coin the value of the coin just inserted
where
 grd1 : $coin \in \{5, 10, 20, 50, 100, 200\}$
then
 act1 : $amount := amount + coin$
end

Event *issueTicket* $\hat{=}$

when
 grd1 : $amount \geq fee$
then
 act1 : $amount := 0$
end

END