ReplaceSensor

$\Delta Registry$
$old_sensor? : SENSOR_TYPE$
$new_sensor? : SENSOR_TYPE$
$new_location? : LCOATION_TYPE$
$new_temperature? : TEMPERATURE_TYPE$

$new_sensor? \notin deployed$
$new_location? \notin deployed$
$map' = map \backslash \{old_sensor? \mapsto location?\}$
$read' = read \backslash \{old_sensor? \mapsto temperature?\}$
$deployed' = deployed \cup \{new_sensor?\}$
$map' = map \cup \{new_sensor? \mapsto new_location?\}$
$read' = read \cup \{new_sensor? \mapsto new_temperature?\}$

ReadCollection

$\Xi Registry$
$collection! : \mathbb{P}(LOCATION_TYPE \times TEMPERATURE_TYPE)$
$location : \mathbb{P}$ LOCATION_TYPE
temperature : $\mathbb{P}$ TEMPERATURE_TYPE

$location \in ran\ map$
$temperature = read(map^{-1}(location))$
$set' = set \cup \{\text{location} \mapsto temperature\}$
$collection!: set'$