

# Action definitions for Tea making Robot

## Improved

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Action ( params )	Precondition	Effects
PourInto ( pourable, container )	Held ( pourable ) ~Empty (pourable ) Empty ( container ) OnFlatSurface ( container ) Reachable ( container ) Uncapped ( pourable )	~Empty ( container ) Empty ( pourable ) InsideOf ( pourable, container )
PutIn ( object, container )	Held ( object ) OnFlatSurface ( container ) Reachable ( container)	InsideOf ( object, container )
Pick ( object, location, hand )	Empty ( hand ) At ( robot, location ) Reachable ( object )	Held ( object ) ~At (object, location) ~Empty ( hand )
Place ( object, location )	Held ( object ) At ( robot, location )	~Held (object) At( object, location )
Heat ( container )	~Empty ( container ) Reachable ( container )	Hot ( container )
Move ( from_location, to_location )	At ( robot, from_location )	At ( robot, to_location )
RemoveCap ( object )	~Uncapped ( object ) Held ( object )	Uncapped ( object )
ReplaceCap ( object )	Uncapped ( object ) Held ( object )	~Uncapped ( object )
Carry ( object, from_location, to_location, hand )	Held ( object ) At ( robot, from_location )	At ( robot, to_location )
ReFillContainer ( object, tap_loaction, container )	Held ( container ) At ( robot, tap_location ) Empty ( container )	~Empty ( container ) InsideOf ( object, container )
ReStock ( carton, store_location, hand )	At ( robot, store_location ) Empty ( carton ) Empty ( hand )	Held ( carton ) ~Empty ( carton ) ~Empty ( hand )

Legend:

pourable - type of object, can be container or carton

container - type of object, can be cup or kettle

carton - type of object, can contain milk

tap\_location - type of location, can supply water

store\_location - type of location, can supply carton of milk