

Init ( At ( left ) )  
 Goal ( Clean ( left )  $\wedge$  Clean ( right ) )

~~Action~~ Action ( Move ( x, y ),

Precond:  $\text{At}(x) \wedge \neg \text{At}(y)$

Effect:  $\text{At}(y) \wedge \neg \text{At}(x)$

Action ( Suck ( x ) )

Precond:  $\text{At}(x) \wedge \neg \text{Clean}(x)$

Effect: Clean ( x )

Init: State

At ( left )  $\rightarrow$  Move ( left, right )  $\rightarrow$  At ( right )

$\rightarrow$  Suck ( left )  $\rightarrow$  At ( left )  $\wedge$  Clean ( left )

$\Rightarrow$  Move ( left, right )  $\checkmark$   
 Move ( right, left )  $\times$

Suck ( left )  $\checkmark$   
 Suck ( right )  $\times$

$\rightarrow$  ...  
 $\rightarrow$  ...