## Making a PB \& J Sandwich (bad)

- Make a peanut butter and jelly sandwich
- Eat
- Well defined problem
- Ambiguous steps to algorithm


## Making a PB \& J Sandwich (better?)

- Put peanut butter and jelly between two slices of bread
-Where do I get the ingredients?
- How do I get them out of their containers?
- What do I use to "put" the ingredients between the layers?


## Making a PB \& J Sandwich (better?)

- Grab a some bread
- Get some peanut butter and jelly
- Grab a knife
- Spread the peanut butter on the bread
- Spread the jelly on top of the peanut butter
- Put peanut butter and jelly between two slices of bread
- Still very ambiguous and imprecise.


## Making a PB \& J Sandwich (better?)

- Take two slices of bread from the loaf.
- Apply two tablespoons of jelly on both halves.
- Apply two tablespoons of peanut butter in the same way.
- Join the two halves
- Ok, better then previous attempts.
- More precision would be better.


## Making a PB \& J Sandwich (best?)

if bag is closed
open bag
if loaf is already sliced
remove two slices from open end
otherwise (it isn't sliced)
remove bread from bag
cut two slices of bread from loaf
put slices on table separately
open the jar of peanut butter
if jar is sealed
unseal jar
pick up knife
put knife in peanut butter
scoop out 2 tablespoons of peanut butter
...and so on.

