```
function SITUATED-PLANNING-AGENT(percept) returns an action
  static: KB, a knowledge base (includes action descriptions)
          p, a plan, initially NoPlan
          t, a counter, initially 0, indicating time
          G, a goal

  TELL(KB, MAKE-PERCEPT-SENTENCE(percept, t))
  current ← STATE-DESCRIPTION(KB, t)
  EFFECTS(START(p)) ← current
  if p = NoPlan then
     G ← ASK(KB, MAKE-GOAL-QUERY(t))
     p ← MAKE-PLAN(current, G, KB)
  action ← NoOp (the default)

   Termination:
     if there are no open preconditions and p has no steps other than START and FINISH then
         p ← NoPlan and skip remaining steps

   Resolving standard flaws:
     resolve any open condition by adding a causal link from any existing
         possibly prior step or a new step
     resolve potential threats by promotion or demotion

   Remove unsupported causal links:
     if there is a causal link START --c--> S protecting a proposition c
       that no longer holds in START then
         remove the link and any associated bindings

   Extend causal links back to earliest possible step:
     if there is a causal link S_j --c--> S_k such that
       another step S_i exists with S_i < S_j and the link S_i --c--> S_k is safe then
         replace S_j --c--> S_k with S_i --c--> S_k

   Remove redundant actions:
     remove any step S that supplies no causal links

   Execute actions when ready for execution:
     if a step S in the plan other than FINISH satisfies the following:
         (a) all preconditions satisfied by START;
         (b) no other steps necessarily between START and S; and
         (c) S does not threaten any causal link in p then
             add ordering constraints to force all other steps after S
             remove S from p, and all causal links to and from S
             action ← the action in S

  TELL(KB, MAKE-ACTION-SENTENCE(action, t))
  t ← t + 1
  return action
```