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 $\xrightarrow{c}$ *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 $S_j \xrightarrow{c} S_k$ such that
      another step S_i exists with $S_i < S_j$ and the link $S_i \xrightarrow{c} S_k$ is safe **then**
        replace $S_j \xrightarrow{c} S_k$ with $S_i \xrightarrow{c} S_k$

  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*