**算法 1:** RGV智能调度算法($2_1$)

**Input:** $t, updown[2], T, Signal, location, time, Clocation, flag, cncflag$

**Output:** $ans$

**begin**
  **if** $|Signal_{1:8,time}| = 0$ **then**
    index = The first one that meets the requirements with flag
    **for** $i \leftarrow 2$ **to** $8$ **do**
      **if** $Singal_{i,time} < Singal_{index,time}$ *and* $cncflag_i \& flag$ **then**
        $index = i$
      **end**
    **end**
    **return** $ans \leftarrow index$
  **end**
  // 距离优先原则
  **for** $i \leftarrow 1$ **to** $8$ *and* $cncflag_i \& flag$ **do**
    **if** $Singal_{i,time}$ *is true and* $location = Clocation_i$ **then**
      **return** $ans \leftarrow i$
    **end**
  **end**
  // 智能体现原则(预判)
  将目前离RGV最近且完成工作且满足flag要求的CNC定为$k_0$
  $timet = time + t_{location,Cloccation_{k_0}} + updown_{k_0\&1}$
  找出timet时间内加工完成且离RGV更近且满足要求的CNC$k_1$
  $time2 = time + max(T_{k_1}, t_{location,Cloccation_{k_1}}) + updown_{k_1\&1}$
  $time2 = time2 + t_{Cloccation_{k_1},Cloccation_{k_0}} + updown_{k_0\&1}$
  $timet = timet + t_{Cloccation_{k_1},Cloccation_{k_0}} + updown_{k_1\&1}$
  **if** $timet \leq time2$ **then**
    **return** $ans \leftarrow k_0$
  **else**
    **return** $ans \leftarrow k_1$
  **end**
**end**