

```
(defun auto2vm(auto)
  (
    append
      '(
        (jump (auto_init auto))
      )
      (vm_etats auto)
      (vm_auto_ok)
    )
  )
```

```
(defun vm_etats(auto)
  (apply
    #'append
    (map
      'list
      (vm_etat_callback auto)
      (auto_etat_liste auto)
    )
  )
)
```

```
(defun vm_etats_callback (auto)
  (lambda (etat)
    (append
      '((label etat))
      (if (auto_final_p auto etat)
        '(
          (move etat R2)
          (cmp R0)
          (bnull ok)
        )
        nil ; cas FALSE
      )
      (vm_read_symbol)
      (apply
        #'append
        (map
          'list(vm_transition_callback etat)
          (auto_trans_list auto etat)
        )
      )
      (vm_auto_not_ok)
    )
  )
)
```

```
(defun vm_read_symbol()
  '(
    (car R0 R1)
    (cdr R0 R0)
  )
)
```

```
(defun vm_transition_callback (etat)
;; le parametre transition est un doublet (symbole,etat)
(lambda (transition)
  '(
    (cmp R1 (car transition))
    (jeq (cdr transition))
  )
)
)
```

```
(defun vm_auto_not_ok ()
  '(
    (move nil R0)
    (halt)
  )
)
```

```
(defun vm_auto_ok ()
  '(
    (label ok)
    (move R2 R0)
    (halt)
  )
)
```

;; fonction du sujet que j'ai mock pour tester

```
(defun auto_init (auto)
  0
)
```

```
(defun auto_final_p (auto etat)
  (equal etat 3)
)
```

```
(defun auto_etat_liste (auto)
  '(0 1 2 3)
)
```

;; auto_trans_list foo 0 ==> '((a 1) (b 3))

```
(defun auto_trans_list (auto etat)
  (cond
    ((equal etat '0)
     '((a 1) (b 3))
    )
    ((equal etat '1)
     '((a 1) (b 3))
    )
    ((equal etat '2)
     '((a 0))
    )
    ((equal etat '3)
     '((a 2) (b 3))
    )
  )
  (t (format t "~% value of a is ~d " a))
)
```