
SOLUTION EXERCICE N°5
LIBRAIRIES ET MULTITACHE

Programme start()

```
begin
  bRobotPret=false
  bRobotEnCycle=false
  bRobotEnPause=false
  bDemandeFCY=false
  resetMotion()
  restartMove()

  taskCreate "Superviseur", 100, superV()
end
```

Programme superV()

```
begin

  call initMenu()

  do
    call affichMenu()

  L_key=getKey()
  switch L_key
  case 271
    if !bRobotPret and !bRobotEnCycle
      taskCreate "robot" , 100, repli()
      title("Cycle de repli")
      wait(taskStatus("robot")==-1)
      title("")
      bRobotPret=true
    endif
    break
  case 272
    if !bRobotEnCycle
      if prg:libLoad("dessin")==0
        gotoxy(0,11)
        put("Dessin chargee      ")
      endif
    endif
    break
  case 273
    if !bRobotEnCycle
      if prg:libLoad("echange")==0
        gotoxy(0,11)
        put("Echange chargee      ")
      endif
    endif
  endif
```

```

break
case 274
  if !bRobotEnCycle
    if prg:libLoad("palette")==0
      gotoxy(0,11)
      put("Palette chargee      ")
    endif
  endif
break
case 275
  if bRobotPret and !bRobotEnCycle
    bRobotEnCycle=true
    bDemandeFCY=false
    taskCreate "robot" , 100, cycle()
  endif
break
case 276
  if bRobotEnCycle
    if !bRobotEnPause
      stopMove()
      bRobotEnPause=true
    else
      restartMove()
      bRobotEnPause=false
    endif
  endif
break
case 277
  if bRobotEnCycle
    bDemandeFCY=true
  endif
break
endSwitch

bRobotEnCycle=(taskStatus("robot")!=-1)
if !bRobotEnCycle
  bDemandeFCY=false
endif

delay(0)
until (l_key==278)
taskKill("robot")
cls()
title("")

end

```

Programme initMenu()

```

begin
  cls()
  userPage()
  getKey()

  // Refresh page display
  putln("")
  putln(" F1 POSITION REPLI ")

```

```
putln(" F2 CHARGEMENT 'DESSIN'")
putln(" F3 CHARGEMENT 'ECHANGE'")
putln(" F4 CHARGEMENT 'PALETTE'")
putln(" F5 START")
putln(" F6 PAUSE")
putln(" F7 FCY")
putln(" F8 QUITTER IMMEDIATEMENT")

nErr=prg:libLoad("dessin")
if nErr==0
  gotoxy(0,11)
  put("Dessin chargee      ")
else
  cls()
  popUpMsg("erreur de chargement de dessin, arret du programme")
  delay(1)
  taskKill("Superviseur")
endif
end
```

Programme AffichMenu()

```
begin

//1er menu de démarrage
gotoxy(0,13)
if !bRobotPret and !bRobotEnCycle and !bRobotEnPause
  put(" F1 F2 F3 F4      F8 ")
endif
//cycle init effectué
if bRobotPret and !bRobotEnCycle
  gotoxy(0,13)
  put("  F2 F3 F4 F5      F8 ")
endif

if bRobotEnCycle
  //efface START, affiche PAUSE et FCY
  gotoxy(0,13)
  put("      ")
  title("Robot en cycle")
  if !bRobotEnPause
    gotoxy(0,6)
    putln(" F6 PAUSE      ")
    gotoxy(27,13)
    put("F6")
  else
    gotoxy(0,6)
    putln(" F6 REPRISE => ROBOT EN PAUSE... ")
  endif
  if !bDemandeFCY
    gotoxy(32,13)
    put("F7")
  else
    gotoxy(0,7)
    putln(" F7 FCY  => ARRET EN COURS... ")
    gotoxy(31,13)
    put(" ")
  endif
endif
```

```
else
  //affiche Robot pas en cycle
  title("Cycle termine")
  gotoxy(25,13)
  put(" ")
  gotoxy(30,13)
  put(" ")
  gotoxy(0,7)
  putln(" F7 FCY ")

endif

//affichage etat du systeme
gotoxy(0,10)
if esStatus()==2
  put("ARU enclenche ")
else
  nMode=workingMode(nEtat)
  if nMode!=3
    put("Passez en mode auto ")
  else
    if !isPowered()
      put("Bras hors puissance ")
    else
      if nEtat!=0
        put("Appuyez sur MOVE/HOLD ")
      else
        put(" ")
      endif
    endif
  endif
endif
endif

end
```

Programme cycle()

```
begin
  do
    call prg:start()
  until bDemandeFCY
end
```

Programme repli()

```
begin
  resetMotion(jDepart)
end
```