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from Myro import*
init()

joystick()

# MOTIONS
forward(<speed>,<seconds>)
forward(<speed>) #range -1.0 for backwards to 1.0 for forward
backwards(<speed>,<seconds>)
move(<translatespeed>,<rotatespeed>) # speeds in range -1.0 to 1.0
rotate(<speed>)
translate(<speed>) # negative speed to go backwards
turnRight(<speed>,<seconds>)
turnLeft(<speed>,<seconds>)
wait(<time>) # time in seconds
stop()

getForwardness() # returns the orientation
setForwardness(orientation) # 0/scribbler forward, 1/fluke-forward

# SENSORS
getBright() # returns 3 values from the Fluke virtual light sensors
# value=1 means free, =0 means obstacle
getBright(<position>) # 0, 1, 2 or 'left', 'center', 'right'
getIR() # 2 values from the Scribbler IR
getIR(<position>) # 0, 1 or 'left', 'right'
getLight() # 3 values from the Scribbler light sensors
getLight(<position>) # 0, 1, 2 or 'left', 'center', 'right' light sensor
getObstacle() # 3 values from the Fluke IR sensors.
# a large value indicates there is an obstacle
getObstacle(<position>) # 0, 1, 2 or 'left', 'center', 'right' Fluke IR sensors
senses() # displays all sensor values in a window and updates
# then every second

# CAMERA
takePicture()
takePicture("color")
takePicture("gray")
takePicture("blob") # returns blob in black on white background
onPixels,avgC,avgY=getBlob() # returns number of pixels and center of blob
show(<picture>)
savePicture(<picture>,<file>) # save picture as gif or jpg
savePicture(<picture list>,<file>) # save pictures as gif
makePicture(<file>) #returns a picture from file where picture was saved

# SOUND
beep(<seconds>,<frequency>)
beep(<seconds>,<f1>,<f2>) # beeps at 2 frequencies
speak("something") #synchronously
speak("something",0) #asynchronously

# a song is composed of separate lines (or separated by ;)
# NOTE1 [NOTE2] WHOLEPART
# NOTE1 is either a frequency or a NOTENAME
# NOTE2 is the same, and optional. Use for Chords.
# WHOLEPART is a number representing how much of a whole note to play.
# note names = C C#/Db D D#/Eb E F F#/Gb G G#/Ab A A#/Bb B C
# from A0 to C8

readSong(<filename>) # read file in song format
saveSong(<song>, append=1)
playSong(<song>)
```

```
makeSong(<text>)
song2text(<song>)
text2song(<text>)

# example
robot = Scribbler()
s = makeSong("c 1; d 1; e 1; f 1; g 1; a 1; b 1; c7 1;")
robot.playSong(s)

# FLOW OF CONTROL
while TimeRemaining(<seconds>):    # used for while loops

# Example
def main():
    # Run the robot for 60 seconds
    while timeRemaining(60):
        L, R = getIR()
        # motors run proportional to IR values switching left and right
        motors(R, L)
main()

for seconds in timer(5):          # used in for loops

if <condition>:
    # do something
elif <condition>:
    # do something
else:
    # do something else

# FILES
pickAFolder()    # to select a folder
pickAFile()     # to select a file
```