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add comment TV remote aliases
add comment Button numbers on the remote
add comment button 2 = fwd, stop = 5, etc
fwd = 2
stop = 5
rvs = 8
pl = 4
pr = 6
cvl = 1
cvr = 3
button = 3
add comment Pin defines
add comment TV remote pin = 10
add comment speaker pin = 3
add comment Rt whskr pin = 8, 1 higher than Left whisker pin
RWpin = 8
LWpin = 7
add comment Left whisker pin = 7
spd = 0
deltaspd = 10
dfg = 0
Lspd = 0
Rspd = 0
bumpflg = 0
Robot ActivityBot initialize ramping medium
Robot drive speed left 0 right 0
new processor
function run function "whisker"
frequency PIN 3 duration (ms) 1000 frequency (Hz) 3000
repeat forever
do button = Sony Remote value received from PIN 10
run function "calcmove"
if dfg = 3
do add comment execute pivot
if bumpflg = 0
do add comment whiskers not controlling
add comment rotate 45 degrees
Robot drive speed left 0 right 0
Robot drive speed left Lspd right Rspd
pause (ms) 1000
spd = 0
Lspd = 0
Rspd = 0
dfg = 0
Robot drive speed left Lspd right Rspd
if bumpflg = 0
do Robot drive speed left Lspd right Rspd
pause (ms) 50

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function whisker
  repeat forever
  do
    repeat while
      check PIN RWpin = high and check PIN LWpin = high
    do
      add comment stay here until whisker hit
      add comment pins high when NOT hit, low when hit
      add comment whisker hit, determine which one hit
      RLval = check PIN RWpin << (bitwise left shift) 1
      RLval = RLval | (bitwise OR) check PIN LWpin
      add comment 0b01 = 1 = hit right, 0b10 = 2 = hit left
      bumpfig = 1
      add comment flag disables remote control in main
      add comment now stop, backup, and stop
      Robot drive speed left 0 right 0
      Robot drive speed left -60 right -60
      pause (ms) 500
      Robot drive speed left 0 right 0
      add comment which way to turn and turn for 1 sec = 90 deg
      if RLval = 1
      do
        add comment hit right, turn left
        Robot drive speed left -26 right 26
      else if RLval = 2
      do
        add comment hit left, turn right
        Robot drive speed left 26 right -26
      add comment turn 1 sec and stop
      pause (ms) 1000
      Robot drive speed left 0 right 0
      Lspd = 0
      Rspd = 0
      add comment send control back to remote
      bumpfig = 0

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