



sleft: left sensor distance

sright: right sensor distance

sleftkeep: ideal distance from left wall

us: ultrasonic sensor

usmin: minimum value provided by ultrasonic sensor

srightmin: minimum distance from right wall

lwallflag: left wall flag (boolean)

SHARP RIGHT STATEMENT: IF ((sleftkeep -sleft) > tol12 && us>usmin && sright>srightmin) **THEN** myservo.write(i) for (i = 105:85:-5)

RIGHT STATEMENT: IF ((sleftkeep -sleft) > tol && us>usmin && sright>srightmin) **THEN** myservo.write(98)

STRAIGHT FORWARD STATEMENT: IF ((sleft -sleftkeep) ≤ tol && (sleftkeep -sleft) ≤ tol && us>usmin && sright>srightmin) **THEN** myservo.write(110)

LEFT STATEMENT: IF ((sleft -sleftkeep) > tol && us>usmin && sright>srightmin) **THEN** myservo.write(120)

SHARP LEFT STATEMENT: IF ((sleft -sleftkeep) > tol12 && us>usmin && sright>srightmin) **THEN** myservo.write(i) for (i = 115:135:5) ***