Level:

repeat

Level = false

gosub DetermineTilt

gosub LegPossibilities

if (TiltX>LevelX+2) and (TiltY+2<LevelY)

//Left Front is lower

if LFcanLengthen

call Lengthen(LF,0,0)

else

call Shorten(RF\*RFsw,LR\*LRsw,RR\*RRsw)

endif

elseif (TiltX>LevelX+2) and (TiltY>LevelY+2)

//Left Rear is lower

if LRcanLengthen

call Lengthen(LR,0,0)

else

call Shorten(RF\*RFsw,LF\*LFsw,RR\*RRsw)

endif

elseif (TiltX+2<LevelX) and (TiltY+2<LevelY)

//Right Front is lower

if RFcanLengthen

call Lengthen(RF,0,0)

else

call Shorten(LF\*LFsw,LR\*LRsw,RR\*RRsw)

endif

elseif (TiltX+2<LevelX) and (TiltY>LevelY+2)

//Right Rear is lower

if RRcanLengthen

call Lengthen(RR,0,0)

else

call Shorten(RF\*RFsw,LR\*LRsw,LF\*LFsw)

endif

elseif TiltX>LevelX+2 // body tilting LEFT

if LFcanLengthen and LRcanLengthen

call Lengthen(LF,LR,0)

else //if RFcanShorten and RRcanShorten

call Shorten(RF\*RFsw,RR\*RRsw,0)

endif

elseif TiltX+2<LevelX // body tilting right

if RFcanLengthen and RRcanLengthen

call Lengthen(RF,RR,0)

else //if LFcanShorten and LRcanShorten

call Shorten(LF\*LFsw,LR\*LRsw,0)

endif

elseif TiltY+2<LevelY // body tilting forward

if LFcanLengthen and RFcanLengthen

call Lengthen(LF,RF,0)

else//if LRcanShorten and RRcanShorten

call Shorten(LR\*LRsw,RR\*RRsw,0)

endif

elseif TiltY>LevelY+2 // body tilting backward

if LRcanLengthen and RRcanLengthen

call Lengthen(LR,RR,0)

else//if LFcanShorten and RFcanShorten

call Shorten(LF\*LFsw,RF\*RFsw,0)

endif

else

Level = True

endif

until Level

return