(nRot: next value for rotation counter – simulating rotating left joystick. pRot: previous value for rotation counter)

nRot = pRot + (AnalogIN \* X2), if X2 != 0

0 + (AnalogIN \* X2), if X2 == 0

Y = Y + cos(pRot), if X2 != 0

Y, if X2 == 0

X = -X – sin(pRot), if X2 != 0

-X, if X2 == 0

Length = 22”

Width = 20.5”

**R** = (Length­2 + Width2)0.5

A = X – (-X2 \* (L/**R**))

B = X + (-X­2 \* (L/**R**))

C = Y – (-X2 \* (W/**R**))

D = Y + (-X2 \* (W/**R**))

WD1 = (B2 + C2)0.5

WD2= (B2 + D2)0.5

WD3 = (A2 + D2)0.5

WD4 = (A2 + C2)0.5

outFLS = 360 – FLS

outFRS = 360 – FRS

outBLS = 360 – BLS

outBRS = 360 – BRS

dMax = largest of WD1…4

dCondition = dMax > 1

outFLD = (dCondition) ? WD2 / dMax : WD2

outFRD = (dCondition) ? WD1 / dMax : WD1

outBLD = (dCondition) ? WD3 / dMax : WD3

outBRD = (dCondition) ? WD4 / dMax : WD4