//create Joystick objects leftJoy and rightJoy

//NOTE: Joystick x-axis is 0 (right is positive), y-axis is 1 (back is positive) [on 3-axis joystick, z-axis is 2]

TankShift(leftJoy->GetRawAxis(0), -leftJoy->GetRawAxis(1), rightJoy->GetRawAxis(0), -rightJoy->GetRawAxis(1));

void TankShift(double leftX, double leftY, double rightX, double rightY)

{

double lf = 0, lr = 0, rf = 0, rr = 0; //lf = left front, lr = left rear, rf = right front, rr = right rear

double deadbandX = 0.1, deadbandY = 0.1;

if (leftY > deadbandY || leftY < -deadbandY || rightY > deadbandY || rightY < -deadbandY) //tank drive

{

if (leftY > deadbandY || leftY < -deadbandY)

{

lf = leftY;

lr = leftY;

}

if (rightY > deadbandY || rightY < -deadbandY)

{

rf = rightY;

rr = rightY;

}

}

else if (leftX > deadbandX || leftX < -deadbandX || rightX > deadbandX || rightX < -deadbandX) //or strafe

{

double strafeSpeed = 0;

//find the greatest magnitude out of the two joysticks, then disregard the one of lesser magnitude

if (abs(leftX) > abs(rightX)) //...if the left joystick is being pushed farther from the center (on the x axis) than the right joystick

{

strafeSpeed = leftX;

}

else //...else the right joy has a greater magnitude (or both magnitudes are equal)

{

strafeSpeed = rightX;

}

//set lf, lr, rf, and rr

lf = strafeSpeed;

rr = strafeSpeed;

lr = -strafeSpeed;

rf = -strafeSpeed;

//NOTE: Strafe right is lf and rr forward, lr and rf reverse

// Strafe left is lf and rr reverse, lr and rf forward

// Right on joystick is positive, so lf and rr are set to strafeSpeed

// Left on joystick is negative, so lf and rf are set to -strafeSpeed (2 negatives make a positive)

}

//...else it doesn't move

leftFront->Set(lf);

leftFrontCenter->Set(lf);

leftRear->Set(lr);

leftRearCenter->Set(lr);

rightFront->Set(rf);

rightFrontCenter->Set(rf);

rightRear->Set(rr);

rightRearCenter->Set(rr);

}