double xAcceleration; //acceleration on the x-axis

double yAcceleration; //acceleration on the y-axis

double zAcceleration; //acceleration on the z-axis

double previousX = 0; //Previous recursive average on x-axis

double previousY = 0; //Previous recursive average on y-axis

double previousZ = 1; //Previous recursive average on z-axis

if(joy.GetRawButton(2)) {

xAcceleration = accelerometer.GetX(); //returns x-axis accel

yAcceleration = accelerometer.GetY(); //returns y-axis accel

zAcceleration = accelerometer.GetZ(); //returns z-axis accel

SmartDashboard::PutNumber("X-Axis G:", xAcceleration);

SmartDashboard::PutNumber("Y-Axis G:", yAcceleration);

SmartDashboard::PutNumber("Z-Axis G:", zAcceleration);

SmartDashboard::PutNumber("Recursive X-Axis Average:", ((xAcceleration\*0.1) + (0.9\*previousX)));

//returns a recursive average for the x-axis

SmartDashboard::PutNumber("Recursive Y-Axis Average:", ((yAcceleration\*0.1) + (0.9\*previousY)));

//returns a recursive average for the y-axis

SmartDashboard::PutNumber("Recursive Z-Axis Average:", ((zAcceleration\*0.1) + (0.9\*previousZ)));

//returns a recursive average for the z-axis

previousX = (xAcceleration\*0.1) + (0.9\*previousX);

previousY = (yAcceleration\*0.1) + (0.9\*previousY);

previousZ = (zAcceleration\*0.1) + (0.9\*previousZ);

printf("A: %f B: %f C: %f\n" ,xAcceleration,yAcceleration,zAcceleration);

Wait(kUpdatePeriod); // Wait a short bit before updating again

}