```
// Tark to run manipulator
task runManip()
{
    bool justFlipped = false;
    bool justRaised = false;
    while (true) {

        // Track current position, set speeds to 0 at start of each
         loop
        wristSpeed = 0;
        flipSpeed = 0;
        flipPosition = -(-4000.0 + (float)SensorValue(flipPot)) /
         (40-4);
        wristPosition = (3200.0 - (float)SensorValue(wristPot)) /
         (32.0-5.0) - (10*(flipPosition < 50));

        // Check if button is pressed & not already running auto-flip
        if (vexRT[Btn6U] && flipStep <=0) {
            // Start auto-flip w/ quick disabled
            flipStep = 1;
            quickToss = false;
        }
        if (vexRT[Btn6D] && flipStep <=0) {
            // Start auto-flip w/ quick enabled
            flipStep = 1;
            quickToss = true;
        }

        // State-machine for auto-flip
        // If we are running auto-flip
        if (flipStep == 1) {
            // Wait until user releases the button before continuing
            if (!vexRT[Btn6U]) {
                flipStep++;
            }
        }
        if (flipStep == 2) {
            // Move wrist up
            wristSeek = 60;
            // Wait until it is above threshold before continuing
            if (wristPosition > 50) {
                flipStep++;
            }
        }
        if (flipStep == 3) {
            // Hold the wrist up, and flip the flipper
            wristSeek = 60;
            flipSeek = 1;
            // Wait until flipper flipped, and button is pressed to
             continue
            if (flipSeek < 30 && (vexRT[Btn6U]||vexRT[Btn6D])) {
                flipStep++;
                // If quick-tossing, skip next step
                if (quickToss) {
                    flipStep++;
                }
                // Clear a timer
                clearTimer(T1);
            }
        }
        if (flipStep == 4) {
            // Gently lower the wrist
            wristSeek = 60 - (wristDownSpeed*time1(T1))/1000;
            flipSeek = 1;
            // Wait until wrist is down
            if (wristPosition < wristHoldPosition) {
                // Skip next step
                flipStep = 6;
            }
        }
        if (flipStep == 5) {
            wristSeek = 60;
            flipSeek = 1;
            // Wait until flipper is all the way round before
             continueing
            if (flipPosition < 5) {
                flipStep++;
            }
        }
        if (flipStep == 6) {
            // Move wrist down
            flipSeek = 1;
            wristSeek = wristHoldPosition;
            // Wait until it's down
            if (wristPosition < wristHoldPosition) {
                // And reset auto-flip flags
                flipStep = -1;
                flipSeek = -1;
                wristSeek = wristHoldPosition;
            }
        }

        // Lerps for wrist and flip
        // If we want to auto-seek the wrist,
        if (wristSeek >= 0) {
            // Run at a speed proportional to the distance left to go
            wristSpeed = -(wristSeek - wristPosition) * wristSeekRate;
        }
        // If we want to auto-seek the wrist,
        if (flipSeek >= 0) {
            // Run at a speed proportional to the distance left to go
```