ROI Experiments:

ARMavlinkMissionItem takeoff = ARMavlinkMissionItem.*CreateMavlinkTakeoffMissionItem*(position.get(0),position.get(1), 0,0, 0);

ARMavlinkMissionItem initialAltitude = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*(position.get(0),position.get(1), 8, 0);

ARMavlinkMissionItem videostart = ARMavlinkMissionItem.*CreateMavlinkVideoStartCaptureMissionItem*(0, 0, 0);

ARMavlinkMissionItem wait = ARMavlinkMissionItem.*CreateMavlinkDelay*(10);

ARMavlinkMissionItem roi1 = ARMavlinkMissionItem.*CreateMavlinkSetROI*(MAV\_ROI.*MAV\_ROI\_WPNEXT*,4,0,0,0,0);

ARMavlinkMissionItem navPoint1 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344976, (float)-74.561673, 8, 0);

ARMavlinkMissionItem roi2 = ARMavlinkMissionItem.*CreateMavlinkSetROI*(MAV\_ROI.*MAV\_ROI\_WPNEXT*,6,0,0,0,0);

ARMavlinkMissionItem navPoint2 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.345069, (float)-74.561172, 8, 0);

ARMavlinkMissionItem roi3 = ARMavlinkMissionItem.*CreateMavlinkSetROI*(MAV\_ROI.*MAV\_ROI\_WPNEXT*,8,0,0,0,0);

ARMavlinkMissionItem navPoint3 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344832, (float)-74.561074, 8, 0);

ARMavlinkMissionItem roi4 = ARMavlinkMissionItem.*CreateMavlinkSetROI*(MAV\_ROI.*MAV\_ROI\_WPNEXT*,10,0,0,0,0);

ARMavlinkMissionItem navPoint4 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344829, (float)-74.561604, 8, 0);

ARMavlinkMissionItem land = ARMavlinkMissionItem.*CreateMavlinkLandMissionItem*(position.get(0),position.get(1),5,0);

ARMavlinkMissionItem videostop = ARMavlinkMissionItem.*CreateMavlinkVideoStopCaptureMissionItem*();

//Adding commands to list

MavController.addMissionItem(takeoff);

MavController.addMissionItem(initialAltitude);

MavController.addMissionItem(wait);

MavController.addMissionItem(videostart);

MavController.addMissionItem(roi1);

MavController.addMissionItem(navPoint1);

MavController.addMissionItem(roi2);

MavController.addMissionItem(navPoint2);

MavController.addMissionItem(roi3);

MavController.addMissionItem(navPoint3);

MavController.addMissionItem(roi4);

MavController.addMissionItem(navPoint4);

MavController.addMissionItem(land);

MavController.addMissionItem(videostop);

VIEW MODE – CONTINUE/ABSOLUTE/ROI - FAIL

ARMavlinkMissionItem takeoff = ARMavlinkMissionItem.*CreateMavlinkTakeoffMissionItem*(position.get(0),position.get(1), 0,0, 0);

ARMavlinkMissionItem initialAltitude = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*(position.get(0),position.get(1), 5, 0);

ARMavlinkMissionItem setView = ARMavlinkMissionItem.*CreateMavlinkSetViewMode*(MAV\_VIEW\_MODE\_TYPE.*VIEW\_MODE\_TYPE\_CONTINUE*,0);

ARMavlinkMissionItem navPoint1 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344976, (float)-74.561673, 8, 0);

ARMavlinkMissionItem navPoint2 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.345042, (float)-74.561412, 8, 0);

ARMavlinkMissionItem navPoint3 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344894, (float)-74.561315, 8, 0);

ARMavlinkMissionItem navPoint4 = ARMavlinkMissionItem.*CreateMavlinkNavWaypointMissionItem*((float)40.344837, (float)-74.561576, 8, 0);

ARMavlinkMissionItem land = ARMavlinkMissionItem.*CreateMavlinkLandMissionItem*(position.get(0),position.get(1),5,0);

//Adding commands to list

MavController.addMissionItem(takeoff);

MavController.addMissionItem(initialAltitude);

MavController.addMissionItem(setView);

MavController.addMissionItem(navPoint1);

MavController.addMissionItem(navPoint2);

MavController.addMissionItem(navPoint3);

MavController.addMissionItem(navPoint4);

MavController.addMissionItem(land);

TAKING A PICTURE—Works, delay function messes it up

//Create Commands

ARMavlinkMissionItem takeoff = ARMavlinkMissionItem.CreateMavlinkTakeoffMissionItem(position.get(0),position.get(1), 0,0, 0);

ARMavlinkMissionItem initialAltitude = ARMavlinkMissionItem.CreateMavlinkNavWaypointMissionItem(position.get(0),position.get(1), 5, 230);

ARMavlinkMissionItem wait = ARMavlinkMissionItem.CreateMavlinkDelay(5);

ARMavlinkMissionItem takePic = ARMavlinkMissionItem.CreateMavlinkImageStartCaptureMissionItem(0,1,0);

ARMavlinkMissionItem stopPic = ARMavlinkMissionItem.CreateMavlinkImageStopCaptureMissionItem();

ARMavlinkMissionItem land = ARMavlinkMissionItem.CreateMavlinkLandMissionItem(position.get(0),position.get(1),0,0);

//Adding commands to list

MavController.addMissionItem(takeoff);

MavController.addMissionItem(initialAltitude);

MavController.addMissionItem(takePic);

MavController.addMissionItem(stopPic);

MavController.addMissionItem(land);

TAKE A VIDEO

//Create Commands

ARMavlinkMissionItem takeoff = ARMavlinkMissionItem.CreateMavlinkTakeoffMissionItem(position.get(0),position.get(1), 0,0, 0);

ARMavlinkMissionItem initialAltitude = ARMavlinkMissionItem.CreateMavlinkNavWaypointMissionItem(position.get(0),position.get(1), 5, 0);

ARMavlinkMissionItem startVideo = ARMavlinkMissionItem.CreateMavlinkVideoStartCaptureMissionItem(0,0,0);

ARMavlinkMissionItem navPoint1 = ARMavlinkMissionItem.CreateMavlinkNavWaypointMissionItem((float)40.344976, (float)-74.561673, 8, 0);

ARMavlinkMissionItem navPoint2 = ARMavlinkMissionItem.CreateMavlinkNavWaypointMissionItem((float)40.345042, (float)-74.561412, 8, 0);

ARMavlinkMissionItem stopVideo = ARMavlinkMissionItem.CreateMavlinkImageStopCaptureMissionItem();

ARMavlinkMissionItem land = ARMavlinkMissionItem.CreateMavlinkLandMissionItem(position.get(0),position.get(1),5,0);

//Adding commands to list

MavController.addMissionItem(takeoff);

MavController.addMissionItem(initialAltitude);

MavController.addMissionItem(startVideo);

MavController.addMissionItem(navPoint1);

MavController.addMissionItem(navPoint2);

MavController.addMissionItem(stopVideo);

MavController.addMissionItem(land);