Test Writer	Sabin Maharjan		
Test Case Name	Throttle and Pitch Set Test	Test ID	1
Description	Communicate with MWC Flip 1.5 Flight Controller using MultiWii Serial Protocol (MSP) commands to set the throttle and pitch for the drone.	Type:	
Name of the Tester	Sabin Maharjan	Date	May 15, 2016
Hardware Version	N/A	Time	8:33 PM
Required	- Drone - Intel Edison with breakout board - GPIO Board attached to Intel Edison - MWC Flip 1.5 Flight Controller - WIFI with SSH connection with Edison - 2x Mini USB –type B connector - 4 female-female pin connector - Stake - Rope		
Pre-Requirement	- RC read test - Arm/Disarm test - Throttle test		
Setup	Connect Mini USB to Console port of the Intel Edison. Connect 4 female-female pin connector from serial port (Tx, Rx, Gnd, 5v) of the Flip 1.5 Flight Controller to GPIO Board's Serial Pin heads (Rx, Tx, Gnd, 5v). The blue light on Edison should be on. Red light on Flip 1.5 Controller should be on. Login to Edison using root. Change directory to "Drone/src". Type "make all". The following actions are done under this directory. The minimum throttle value set in multiwii's config.h file is 1220. In the code, the default throttle value is set to 1095. Motor turns at throttle value 1100 For Step 1-4, No Drone battery connection required. For Step 5-8, Done battery connection is required. **Remove Propellers from the motors**. For Step 9-11, Done battery connection is required. **Add Propellers on the motors**. **The drone should be ties to the stake with the rope and make sure no one is closer to drone than 5ft.** **Console Command: ./drone move**		

Step	Action	Header 3x(uint8_t)	Length (uint8_t)	Code (uint8_t)	Data 4x(uint16_t)	CRC (uint8_t)	Expected Result	P/F	Comment
1	Press right key	$M<	16	200	1500 1501 1500 1000	221	Value of pitch goes up by 1		
2	Press right key after 1 second	$M<	16	200	1500 1502 1500 1000	194	Value of pitch goes up by 1		

3	Press left key after 1 second	$M<	16	200	1500 1501 1500 1000	221	Value of pitch goes up by 1		
4	Press left key after 1 second	$M<	16	200	1500 1500 1500 1000	216	Value of pitch goes up by 1		
9	Keep pressing up key every second until drone makes a lift off.	$M<	16	200	1500 1500 1500 [varies with the key press]	varies	The drone takes off from the ground		
10	Keep pressing right key every second until drone makes a forward movement	$M<	16	200	1500 [varies with the key press] 1500 [varies with the key press]	varies	The drone moves forward. (away from the tester)		
11	Keep pressing left key every second until drone makes a forward movement	$M<	16	200	1500 [varies with the key press] 1500 [varies with the key press]	varies	The drone moves backward. (towards the tester)		