**Miami-Dade Police Department**

**Micro Air Vehicle**

**AIR VEHICLE (AV ENGINE) TUNING CHECKLIST:**

1. Perform AV EXTERIOR CHECK-See APPENDIX G
2. Ensure that AV is fueled-See AV FUELING PROCEDURE CHECKLIST (MANUAL)- APPENDIX M OR AV FUELING PROCEDURE CHECKLIST (E-FUELER) – APPENDIX N
3. With the tuning stick, turn high and low carb screws clockwise until closed
4. With the tuning stick, turn lower carb needle out 1 1/8 turn
5. With the tuning stick, turn upper carb needle out 1 ¼ turn
6. All switches down/off on avionics pod
7. On avionics pod place servo enable switch up
8. On avionics pod place power switch up and wait for solid red light
9. On avionics pod place servo enable switch down
10. Check for solid red and blinking green light on avionics pod
11. On avionics pod place servo enable switch up
12. On avionics pod verify solid red and blinking green light
13. Start engine by pulling on starter cord, utilize choke if necessary
14. Once started, allow 1 minute for engine to warm up
15. With the tuning stick, turn the **LOW** needle clockwise until RPMs drop off
16. With the tuning stick, turn the **LOW** needle counter clockwise until RPMs drop off
17. With the tuning stick, find center point in RPM for low needle
18. With hand on top of the AV air filter, flip the remote launch switch up on avionics pod
19. **Hand must remain on top of AV air filter during the remaining steps to prevent AV from taking off uncontrolled**
20. With the tuning stick, turn the **HIGH** needle clockwise until RPM drop off
21. With the tuning stick, turn the **HIGH** needle counter clockwise until the RPM drop off
22. With the tuning stick, find center point in RPM for high needle
23. On avionics pod flip remote launch switch down and allow RPM to stabilize
24. On avionics pod flip remote launch switch up and listen for smooth transition
    1. If engine stalls, sputters or hesitates, on avionics pod flip remote switch down and retune **LOW** needle with tuning stick

23) On avionics pod repeat by flipping the remote launch switch up and then down for smooth transition

1. On avionics pod verify remote launch switch down
2. On avionics pod servo enable switch down-engine should stop
3. On avionics pod power switch down