MICRO CLASS INSPECTION CHECKLIST
General, Technical and Safety-2016

TEAM NUMBER: _____

TEAM NAME: _____

With the exception of a standard tape measure and official test blocks and gauges, team must provide any materials and/or tools required to demonstrate compliance with Technical Inspection requirements.

Note: As Micro class aircraft are presented in their container, inspectors may move ahead to the checklist items involving the containerized aircraft and come back to General items later.

Caution: Aircraft is to be presented with prop, flight battery AND red shunt plug removed

General Aircraft Requirements	PASS	FAIL	Rule
Aircraft Identification			2.1
University Name and address on inside or outside of aircraft	_____	_____	2.1.1
3" minimum size team number on top and bottom of the wing	_____	_____	2.1.2
3" minimum size team number on sides of aircraft (vertical tail or fuselage)	_____	_____	2.1.2
University name or initials clearly displayed on the wings or fuselage	_____	_____	2.1.3-.4
Empty CG Design Requirement and Empty CG Markings			2.3
Aircraft empty CG is located in a safe flyable position	_____	_____	2.3.1
All aircraft have the fuselage clearly marked on both sides with a classic CG symbol (at least .5" in dia.) centered on the Empty CG location	_____	_____	2.3.2
Empty CG position on aircraft matches submitted drawing	_____	_____	2.3.3/6.1.3
Aircraft Conformance to 2D Drawing			6.1
Aircraft length, wingspan and height measured and compared to 2D drawing. Tolerance .25". Any other measurement on the drawing may be inspected. Deviation from drawing requires Eng. Change Request (ECR)	_____	_____	6.1.1
Aircraft uses a 2.4 GHz radio control system	_____	_____	2.6
Spinner or model aircraft type safety nut installed	_____	_____	2.7
No metal prop	_____	_____	2.8
No lead used in any portion of the aircraft or payload	_____	_____	2.9
Payload does not contribute to the structural integrity of the airframe	_____	_____	2.10.
Aircraft Ballast			2.11
Ballast not installed in closed payload bay	_____	_____	2.11.1/.4
Ballast stations must be indicated on 2D drawing (if ballast is used)	_____	_____	2.11.2
Ballast must be properly secured to avoid shifting or falling off the aircraft	_____	_____	2.11.3
Aircraft is powered only by the Engines/Motors installed in aircraft			
No other forms of stored potential or kinetic energy may power the aircraft in flight	_____	_____	2.12
Control surfaces, hinges and control horns secure and free free from slop	_____	_____	2.13
All servos properly sized for aircraft	_____	_____	2.14

	PASS	FAIL	Rule
All linkages secure. If a clevis is used, it must have a keeper	_____	_____	2.15
Red arming plugs for electric aircraft			2.16
Aircraft must have a discrete and removable red arming plug	_____	_____	2.16
Arming plug must be located on top of aircraft	_____	_____	2.16.2
Arming plug is located between 40 and 60% of the fuselage length from prop.	_____	_____	2.16.1
(Teams may not disconnect wiring harness to arm and disarm their system)			2.16.3
Safety equipment			
Team must present at least two pairs of safety glasses for inspection	_____	_____	1.17.5
Micro class teams must present at least one safety helmet for each team member that will step into the launching area	_____	_____	1.17.5.4 and 9.4.1.2

Micro Class Requirements.

Aircraft Container

Measure and record overall length of aircraft container in inches for scoring	_____	Inches	SCORING
Aircraft is in container with prop, battery and Red arming plug uninstalled.	_____	_____	Safety
Weight of fully packed Micro aircraft container is 10 lbs. or less	_____	_____	9.5.1.2
Container maximum cross section measurement cannot be greater than 6" measured to outside surface of the container.	_____	_____	9.5.1.1
Complete school name, school address and team number on container	_____	_____	9.5.1.5
Container has a carrying handle AND shoulder strap	_____	_____	9.5.1.3
Propulsion system battery not installed in aircraft while packed in container	_____	_____	9.5.2.2
Propulsion system battery is contained in it's own partitioned space	_____	_____	9.5.2.4
All aircraft parts except for transmitter and spares fit in container	_____	_____	9.5.2.1
If there is a separate flight control/radio battery not installed in aircraft, the radio battery has a dedicated location in the aircraft container	_____	_____	9.5.2.6
Model should be assembled without prop for rest of checklist			
Do not install prop, motor battery or red arming plug until indicated	_____	_____	Safety
Enclosed Payload Bay and Payload			
Official Payload Bay test block must fit in Payload Bay	_____	_____	9.3.2.3
Payload bay dimensions are1.5"x1.5"x5", plus or minus .10"	_____	_____	9.2.1
Enclosed payload bay must have a continuous top, bottom and four sides	_____	_____	9.2.2.1
At least one side must be removable for payload bay access	_____	_____	9.2.2.3
The interior surfaces of the payload bay must be smooth and unbroken	_____	_____	9.2.2.4
Payload support assembly must prevent weight from shifting	_____	_____	9.2.3
Only the payload support can penetrate the payload bay (no lightning holes)	_____	_____	9.2.2.6
Payload support assembly must be removable for the payload bay fit check	_____	_____	9.2.2.7
Payload consists of plates and plates are retained as one homogenous mass	_____	_____	9.2.3

Battery or Batteries	**PASS**	**FAIL**	**Rule**
If two batteries used, motor battery not installed yet	_____	_____	Safety
If two batteries used, radio system battery must be of a suitable size	_____	_____	Safety
Maximum flight battery size is 3 cell 2200 mAh lithium polymer (Smaller flight battery is allowed)	_____	_____	9.1.3
Motor(s) and Gearboxes (if applicable)			
Properly mounted and secure	_____	_____	Safety
Wings and tail assemblies free of warps and mounted securely	_____	_____	Safety
Landing Gear and Wheels (if applicable)			
Gear mounted securely	_____	_____	Safety
Wheel collars secure	_____	_____	Safety
Radio Equipment			
All servos installed properly and securely mounted	_____	_____	Safety
Radio power switch mounted properly, if applicable	_____	_____	Safety
Receiver mounted securely	_____	_____	Safety
Throttle and Radio Function			
Confirm Red arming plug removed	_____	_____	Safety
Battery or batteries installed and secure	_____	_____	Safety
Connect all batteries, turn on TX and aircraft radio system	_____	_____	Safety
Install Red arming plug	_____	_____	Safety
All flight control (and ground steering servos if applicable) operate in correct direction and with no clashing or overloading	_____	_____	Safety
Check for correct throttle response	_____	_____	Safety
Motor turns in correct direction	_____	_____	Safety
Check that low throttle and/or low throttle trim completely stops motor	_____	_____	Safety
Functional fail safe (Motor must go to zero RPM if TX signal lost)	_____	_____	2.6
Remove red arming plug, remove flight battery and turn off aircraft	_____	_____	Safety
Turn off TX	_____	_____	Safety
Inspection Sticker(s)			
All airframe parts stickered after technical inspection (wings, fuselage, tail if removable, spare airframe parts, if any)	_____	_____	
For Micro class, apply sticker to aircraft storage container			

First Inspector _____

Second Inspector _____

Instructions: First inspector notes pass or fail items. If anything does not pass, that item must be corrected by the team and re-inspected by the second inspector.