

# Drones/Quadcopters 101

*I want to fly a drone/quadcopter, what do I need to know?*

# Drones that RC Club Members like

- **Indoor/Outdoor Drones - \$45.00 to \$160.00**
  - Hubsan
  - Blade - Nano, Inductrix RTF, including the “Switch” drone to hovercraft
  - Eachine - E58
  - Dromida - Vista, Ominus
  - Ethos - QX 130
  - Jet Pack Drone (Dave Levy’s favorite)
  - Helifar H803 (motion sensitive/obstacle avoidance)

# What should I look for when buying a Drone/Quadcopter

- Shopping on-line or in a Retail Location
- **Basic guidelines:**
  - **RTF (Ready to Fly)** includes the controller
  - Replaceable batteries, small batteries have a 6 to 10 minute flight time
  - Prop guards and availability of parts, batteries, proper battery charger
- **Indoor or outdoor use, or both**
  - Size does matter, when selecting a drone for indoor/outdoor use or both
  - Palm size is a good guideline for indoor drones and some are capable of outdoor flying in very light winds
  - Larger models (6 to 8 inch, (motor to motor)) are still good for indoor flying, and better suited for outdoor use.
  - Weight does matter, drones for outdoor use should have some weight to them for stability in winds, max winds for drone flying < 10 mph

# And the Price is...,

- **\$45.00 to \$160.00**

- This price would include the RTF drone, at least 2 extra batteries, and charger. This category is for fun, learning how to fly and becoming a better drone pilot
- Look for stability first, and ability to “trim” the flight. Some models advertise a stable hover, GPS and ability to connect to a smart phone. Caution on “Headless” mode, will not improve flying larger, more sophisticated drones
- What are your long range plans? This will impact your selection
  - Larger, faster racing drones
  - Aerial videos and photography drones

# Now start flying

- Baby steps in a large area
  - READ the INSTRUCTIONS if your drone did not come with any, get on YouTube You may need to bind, adjust, find the secret to turn the drone on, get the rotor to operate, etc
  - Face the drone away from you, pointing in the direction your want to fly.
  - Try going up and down, then sideways, and left and right yaws
  - Fly straight away from you , then return by flying backwards
  - Once you have mastered the basic maneuvers then at a safe distance, fly towards you, drone facing you, the left and right will be the left and right of the drone, not your left and right
- *Landing Pad important for camera drones*

# DJI camera drones

- **Why DJI ?**
  - Service, parts availability
  - Best in class camera, obstacle avoidance, features and construction
- **Spark** - with controller \$399.00, fly more \$549.99 (2 batt), battery \$49.00, always look for price including controller
- **Mavic Air** – with controller \$799.00, fly more \$999.00 (3 batt.), battery \$79.00
- **Mavic 2 Pro** – with controller \$1485.99, fly more \$379.00(2 batt.) battery \$139.00
- **Mavic 2 Zoom** – with controller \$1249.00, fly more (same as the Pro)
- **Mavic Pro, Mavic Pro Platinum, and Phantom** series

# DJI Mavic Pro and Phantom series

- **Mavic Pro** – w/controller \$999.99, battery \$89.99, fly more ?
- **Mavic Pro Platinum** – w/controller \$1,099.99, fly more \$1,299.00, batt \$89.99. Quieter than Pro, different ESC's and props
- **Phantom 3** - (refurbished) \$500 - \$600. battery around \$65.00
- **Phantom 4** – ebay prices bundle \$750.00 (1 batt), battery new \$169.00
- **Phantom 4 Advanced** - \$1,199.00, battery \$169.00
- **Phantom 4 Pro** - \$1,499.00 , battery \$169.00