

Module 7

Propulsion System

1. Propeller Size Nomenclature

What is the length and pitch of a 5X4 propeller?

2. How Pitch and Length of prop affect Thrust

Complete the following:

a) If you increase the prop length or pitch:

The surface area and drag _____(increase/decrease).

_____ (more/less) air can be moved.

_____ (more/less) thrust is generated.

The Quad moves _____ (faster/slower)

You need _____ (more/less) power from the motor.

The motor draws _____ (more/less) current.

b) If you decrease the prop length or pitch:

The props spin _____ (faster/slower).

The RPM goes _____ (up/down)

The motor draws _____ (more/less) current.

The quad moves _____ (faster/slower)

You need _____ (more/less) power from the motor.

3. Answer True or False

- a) _____ Propellers convert engine power to lift
- b) _____ The length of a prop is always measured in inches
- c) _____ Low RPM generate small torque
- d) _____ Small props are not very efficient
- e) _____ Large props are not very stable
- f) _____ Large props lift more weight
- g) _____ The leading edge of a prop is the protruding side
- h) _____ Props should never spin in the direction of the leading edge