



Lesson 3 – Quadcopter Design Challenge

Lesson Focus

This lesson builds upon the lesson two, utilizing the engineering design process (EDP). Students will work in teams to solve the challenge by designing a quadcopter drone that successfully takes flight.

Lesson Synopsis

Students learn about the engineering design process by doing an engineering design challenge: Constructing a Quadcopter Drone where they need to design a process to successfully construct a quadcopter drone.

Objectives

During this lesson, students will:

- Apply the engineering design process to solve a design challenge.
 - Build, test, and redesign a drone prototype.
 - Employ teamwork and communication to successfully solve a challenge.
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Anticipated Learner Outcomes

As a result of this activity, students will have:

- Applied the engineering design process to solve a design challenge.
 - Built, tested, and redesigned a drone prototype.
 - Employed teamwork and communication to successfully solve the challenge.
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Lesson Activities

Teams of students (3-4) use the engineering design process to solve the Quadcopter design challenge. The lesson closes with students sharing all they learned about the engineering design process in an EDP lab report.

Resources / Materials

- Teacher Resource Documents (attached)
 - Student Worksheets (attached)
 - Student Resource Sheets (attached)
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Alignment to Curriculum Frameworks

See attached curriculum alignment sheet.