

The prototype will be graded keeping in mind that it is a prototype and generally won't be as polished.

PROTOTYPE DEADLINE: WEDNESDAY, MARCH 18TH

PROTOTYPE	6 - 7 points	8 - 9 points	10 - 11 points
OPTION 1: BUILD a vehicle that "flies" after going down a parabolic ramp OPTION 2: DESIGN in 3D (digital or tangible) something that flies	Has SOME of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design 	Has MOST of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design 	Has ALL of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design
INCORPORATING Newton's Laws, Thrust, Lift, Drag and Weight principles in the design/build	Incorporates SOME of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation 	Incorporates MOST of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation 	Incorporates ALL of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation
JUSTIFYING design based on Newton's Laws, Thrust, Lift, Drag and Weight principles	Explanation of design justifies only SOME design/build features.	Explanation of design justifies only MOST design/build features.	Explanation of design justifies only ALL design/build features.

The final product will be graded as a final product and expectations of quality and polished work are higher.

FINAL PRODUCT DEADLINE: WEDNESDAY, MARCH 25TH

FINAL	12 - 14	16 - 18	20 - 22
OPTION 1: BUILD a vehicle that "flies" after going down a parabolic ramp OPTION 2: DESIGN in 3D (digital or tangible) something that flies	Has SOME of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design 	Has MOST of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design 	Has ALL of these: <ul style="list-style-type: none"> ● functional/works ● demonstrates effort ● a lot of thought is put into the design
INCORPORATING Newton's Laws, Thrust, Lift, Drag and Weight principles in the design/build	Incorporates SOME of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation 	Incorporates MOST of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation 	Incorporates ALL of these: <ul style="list-style-type: none"> ● Newton's Laws ● Lift principle/equation ● Weight principle/equation ● Drag principle/equation ● Thrust principle/equation
JUSTIFYING design based on Newton's Laws, Thrust, Lift, Drag and Weight principles	Explanation of design justifies only SOME design/build features.	Explanation of design justifies only MOST design/build features.	Explanation of design justifies only ALL design/build features.

Total ___ /100

We'll add another point to whatever your score is because the most you can get through the rubric is 99.