## Lesson 10 – Activity Sheet

## Getting Started

The style and functionality of your racing shell will be critical to your chances of winning the race. It will need to be lightweight, stylish and aerodynamic. You will need to come up with a design that ‘looks good’, which will encourage purchasers, is functional and will improve the vehicles chances of winning the race.

You will use the iterative development cycle or critique and revision process to produce you team design

Watch this YouTube video for ideas on how to use critique and revision <https://www.youtube.com/watch?v=dOSiU42P8Gc>

## Success Criteria

* Develop a body shell for the racing Bit:Bot that meets:
  + The brand requirements look good and will encourage sales
  + The design is functional and protect key components from damage (including the occupants)
  + The design is lightweight and aerodynamic to enable you to have the best chance of winning your race.

## Pro-tip

## You will have to consider weight, friction, aerodynamics, branding and style

## Have someone in your team in charge of each of these activities do your research.

* Create your first designs independently with a focus on each of the areas
* As a team use Critique and Revise to start to combine the designs into a single design that covers all aspects of the Success Criteria

## Test Time

* Try your shell on, does the robot move freely?
* Do you have access to everything but are they still protected?
* Have you covered the sensors?
* How does the shell meet both your brand image and the ability to improve performance?

## Stretch Tasks

## Try different materials and designs, don’t just take your first idea

## Critique and Revise everybody’s opinion matters!

* What compromises will you need to make to ensure a functional, safe, good-looking and aerodynamic vehicle

## Final Thoughts

## During today’s lesson we have looked at the concept of iterative design using ‘Critique and Revise’; seen how small iterative changes over time can have a huge impact on the final product and how good critique focus groups will help the design process

## You have gone on to use these techniques to create a design for your Bit:Bot Race Car using the materials you have available