

- What challenges or unexpected issues arose during the build?
- How did you troubleshoot and solve those challenges?
- · How could your robot be used to help people or solve a real-world problem?
- Which parts of the design did you alter based on testing?
- How did you prioritise and sequence the steps in the building process?
- What was the most/least challenging part?
- Did any of your debugging efforts lead to a complete redesign?



 $\boldsymbol{\cdot}$  Which details did you decide were unnecessary and chose to leave out?

- Were there parts of the build that you initially thought were essential but later realised were not?
- What other movements or actions would you like your robot to perform?
  How could you modify your robot to move faster/slower/more smoothly?
- What sensors could an be added to your robot to make it more aware of its surroundings?
- $\cdot$  Do people/animals use the robot? If so, how does the robot interact with its users?



• Can you think of a scenario where your robot might fail or encounter difficulty? How might you overcome that?

• How might you collaborate with a classmate to combine the features of both your robots?

Let's Talk Computational Thinking



- What is the main purpose of your robot?
- Can you think of another job or task your robot could do?
- What inspired the design and function of your robot?
- Can you explain your code?
- Did your code work the first time? Why/why not?
- Can you explain how you increased the speed?
- Were there elements from previous builds that you incorporated into this design?
- Did you notice any recurring problems or challenges?



- Can anyone imagine what coding blocks Joan may have used for this?
- Can anyone take Jonathan's code and add to it?
- Is there another way of solving this?
- Can you explain how Fiona made their build move?

## Examine

- How can you make your robot look more interesting or appealing?
- What would happen if you changed the shape or size of your robot?
- $\cdot$  Can you add any decorations/accessories to give your robot a personality?
- What components did you divide your robotic build into? Why??
- $\cdot$  How did you identify and separate the functions of each component?
- Are there patterns or repeated elements in your design? If so, what purpose do they serve?
- $\cdot$  Have you seen similar design patterns in other robotic builds? If so, how did those influence your design?