Assessment rubric

KS4 - Physical computing programming project

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Emerging** [1] | **Expected** [2] | **Exceeding** [3] | **Total** |
| **LED timings and accuracy**  Did the lights flash at the right times? | The LEDs were either not connected properly or not suitably configured to function as expected. | The LEDs were correctly connected and configured. The lights functioned as expected and were positioned in a suitable location on the chassis. | The LEDs were correctly connected, configured, and positioned as expected. The LED wiring was neat and well placed. |  |
| **Ultrasonic sensing**  How well was this implemented? Did the buggy stop when it encountered an obstacle? | Ultrasonic sensing may work sporadically. The output plays no part in the buggy’s decision-making process. | Ultrasonic sensing was correctly connected and configured. It allowed the buggy to come to a standstill when it encountered an obstacle. | The buggy not only avoided an obstacle in its way, but also managed to navigate a course around it. |  |
| **Line-sensing capabilities**  Did the buggy follow the course accurately? | Line-sensing capabilities were either not sensitive enough or too sensitive to be of any use. | Line-sensing capabilities were accurate and suitably configured to follow a line on the ground. | Line-sensing capabilities allowed the vehicle to veer around objects and continue along its path. |  |
| **Chassis design**  How innovative is the design? | Chassis design is basic with little consideration for the location of components. | Chassis design is suitable for the project. Consideration has been given to the location of the components and proximity to each other. | Chassis design is well thought out. Consideration has been given not only for the location of the components, but also the neatness of wiring. |  |
| **Structural integrity of chassis**  How well does the chassis hold up during movement? | Structural integrity of the chassis is compromised during movement. | Chassis maintained structural integrity during movement, but may not have been 100% stable. | Chassis remained intact and stable throughout the course of its navigation around the track. |  |

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