Success Criteria – as of 15/11/21

| Criteria | Description |
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| 1 – Application (input) | 1.1 – Allow user to select team/player colours |
| 1.2 – Allow user to start a RoboCup game on button press |
| 1.3 – Allow user to exit the program on button press |
| 1.4 – Allow user to pause and then resume a game while it is running |
| 2 - Program | 2.1 – Save user team choices when one is selected then appropriately display in game |
| 2.2 – Kill the program completely when exit button is pressed |
| 2.3 – Start a RoboCup game when the start button is pressed |
| 2.4 – Generate the pitch, ball and players when the game is started |
| 2.5 – Game is strictly 2D |
| 2.6 – Players have roles ‘striker’, ‘midfield’, ‘defender’ etc which influence their behaviour in game. |
| 2.7 – Each player is independent of each other, tracking the ball individually |
| 2.8 – Players attempt defensive measures if not in possession of the ball, tackling, marking men |
| 2.9 – A tackle is initiated by the closest player to the ball, with teammates moving nearer. If the defender gets close enough to initiate a tackle, they win the ball. There is a chance of a foul being performed. |
| 2.10 – If a player receives a foul, they may be awarded a yellow or red card. One red or two yellow cards will result in the player being removed from the game. |
| 2.11 – Save and display which players have been given cards |
| 2.12 – When a foul is performed outside of the goalkeeper’s area, the opposing team receives a free kick. |
| 2.13 – When a foul is performed in the goalkeeper’s area, a penalty kick is awarded. |
| 2.14 – The goalkeeper does not leave its area. |
| 2.15 – When a player touches the ball while it is not in possession, it gains possession of the ball. |
| 2.16 – When a player is in possession of the ball, it can run with the ball, pass or shoot. |
| 2.17 – Passing the ball involves ‘kicking’ the ball to a teammate when there is little risk of interception. |
| 2.18 – Players may predict teammate positions and change behaviour accordingly. |
| 2.19 – If a player cannot see the ball, it will attempt to predict its position and change its behaviour accordingly until it is in view again. |
| 2.20 – Player sight is determined with an invisible cone within a predetermined field of view. |
| 2.21 – When a player is in possession of the ball close to the goal, it may attempt to shoot for a goal. |
| 2.22 – If a goal is scored, the score is updated and each team assumes starting positions in favour of the conceding team. Play then resumes as normal. |
| 2.23 – A timer continues through the duration of the game. After half the allotted time has passed, stoppage time begins. |
| 2.24 – Stoppage time is based on how many fouls were performed in the half. It can be zero. |
| 2.25 – When stoppage time is over, the half ends. Play pauses and a new half begins, with players moving into start positions. |
| 2.26 – When the second half is over, the game ends and the final score is shown. |
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* Change into a google doc soon