# GUI Report

All emboldened codes refer to the project requirements that were updated for this assessment: [here](#)

As the new team tasked with extending upon the work that *Fractal* started in the first two assessments, our approach towards improving their game's UI was to preserve the structural rigidity **[1.2.4]** and general simplicity **[1.1.X, 1.2.2, 1.2.3]** of the interface while simultaneously tidying it up and working more uses out of the screen-spaces that went to waste in *Fractal's* design. This helped us to produce a new UI which, at once, never overloads the player with too much information while still making very effective use of the non-resizable 1024 × 512 window that it takes place in (primarily by phasing important elements in and out on a contextual basis).

When the game begins (after player 2 is set to be either a human or computer-controlled opponent) **[4.1.1]**, a message telling player 1 **[4.1.3]** to acquire a tile **[2.1.1]** appears at the top of the screen for about 5 seconds before vanishing and leaving the player with a complete view of the game's movable map **[1.1.1]**: this message is also printed in the top-right corner of the game's window and left on display until a tile is acquired. This ensures that players are never left in doubt regarding who should be in control and what they should do at any given stage of the game, thereby helping the unfamiliar audience that the game is made for to pick it up quickly. Clicking on a tile at this point will raise options to claim it for a small fee **[2.1.1]** or to ignore it **[2.2.2]**; choosing to claim it at this point will place a coloured border around the tile to identify that plot's new owner.

Once a tile has been claimed in phase 1, the "Next Phase" button **[5.1.X, 5.2.1]** seen in the preceding screenshot appears, and clicking on it will open the roboticon market **[6.1.X]** shown in the screenshot below. This has been changed drastically from *Fractal's* original design, as it now appears **over** the game's map rather than in an entirely separate interface. It is now also far smaller, allowing for the resource-counters shown in the top-left hand of the screen during phase 1 to remain on screen and indicate what players own **[1.1.3]** while they contemplate purchasing new roboticons or roboticon upgrades. Like *Fractal's* original implementation, it's still made available on a timed basis **[5.1.3]** and will automatically close if the timer appearing below the roboticon market's interface ever hits zero.
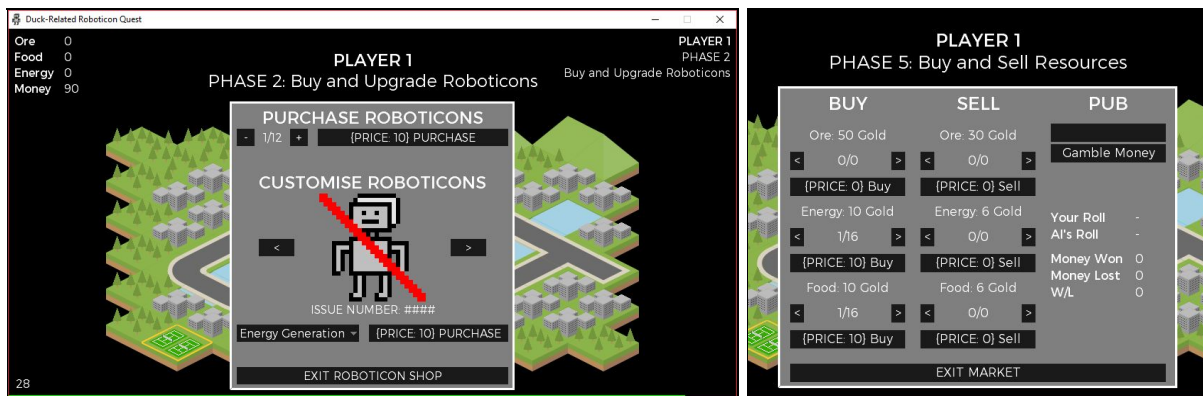
The resource-market that shows up in phase 5 **[5.1.2, 8.1.X]** was also reimplemented in much the same way, although this was also extended to include a new gambling interface (complete with labels for indicating statistics and gamble outcomes) for the purpose of meeting requirement **[9.1.X]**. Both markets now display their stock-levels **[8.2.1]** as limits in the numbers of roboticons and resources that shoppers can buy from them - thereby saving space that would have otherwise been required to display such stock-levels in dedicated regions - and they also display the totalled costs of potential transactions **within** the buttons that they provide for completing those transactions, negating the need for players to calculate the collective costs of bulk item purchases.

Clicking on a player-owned tile in phase 3 will present a drop-down box and some options to allow for a player-owned roboticon to be planted on a tile **[3.1.1, 6.1.5]** or - if a player desires it - for such an action to be cancelled instead. Phase 4 will also behave like it did before **[7.1.2]** and momentarily indicate the yields generated by the current player in their (still-ongoing) turn **[7.1.3]**.

Finally, and with our introduction of random effects **[11.1.X]** into *Fractal's* game, new windows will now occasionally pop up just before each turn begins to indicate the player- and plot-affecting effects that may be applied at those points **[11.2.1]**. These windows state the names and descriptions of any effects that the game may choose to apply, thereby clearly indicating their presences to players who may otherwise be confused by them.