Our code is basically bunch of if-elseif-else statements implementing our algorithm. We scan alternate turns to determine the first if-else branch of our code. When we do not scan, we Attack, heal or move depending on our health and proximity to zombies. Instance attributes for them are initialized in the characters __Init__ method.

We start by analyzing the scan results and calculating the position of the nearest zombie.

Once we have all the necessary information, we choose which action to take implemented by if-else statements. We start with actions which are taken when proximity to a zombie is detected defined by a certain amount of Manhattan steps (Here 3).

If the Zombie is close and our health is high, then we attack, if not then we move away from it. We observed that our player may get so caught up in moving away that the conditionals do not allow it to heal and it dies, so we put in an exception to consider that.

If the zombie is away and we have heals left, we play on the defensive. If not, we move on the offensive by going to center or chasing.

We have implemented code to consider corner cases.