P1	P2	P3
A11 = 0	B11 = 1/4	C11 = 0
A21 = 0	B21 = 1/4	C21 = 0.5
A31 = 0	B31 = 0	C31 = 0
A41 = 0	B41 = 1	C41 = 1
A12 = 0	B12 = 0	C12 = 0
A22 = 0	B22 = 0	C22 = 0
A32 = 0	B32 = 1	C32 = 0
A42 = 1	B42 = 1	C42 = 1
A13 = 0	B13 = 0	C13 = 0
A23 = 0	B23 = 0	C23 = 0
A33 = 1/2	B33 = 0.875	C33 = 0
A43 = 1	B43 = 1	C43 = 1
A14 = 0	B14 = 0	C14 = 0
A24 = 0	B24 = 0	C24 = 0
A34 = 0	B34 = 0	C34 = 1
A44 = 1	B44 = 1	C44 = 1

This table shows the Nash Equilibrium sub-family used in our agent. We picked a equilibrium profile sub-family for each player that plays best against any other different equilibrium profile [25]. Player one has no free parameters so its strategy profile is fixed [25]. Player 2 is playing the C11 = 0 sub-family where B11 = B21, notice in the C11 = 0 sub-family B11 does not have to be equal to B21, the condition for this sub-family is B11 <= B21 and B21 <= ¼ but making B11 = B21 creates the strongest strategy profile against any other strategy profile played by P1 and P2 [25]. Also notice B11 = B21 = ¼, which makes β = 1/4, where β = max {B11, B21} and the value of B11, B21 can range from 0 to ¼. The dependent parameter B41 comes from 2*b11 + 2*b21 (2*1/4 + 2*1/4) [25] which is 1. The independent parameter B32 comes from B32 <= ½ + ¾ * (B11 + B21) + β/4 so B32 <= 1. Dependent parameter B23 comes from max {0, (B11 – B21)/2 * (1 – B21)} so max{0, 0/2 * 3/4 } which is 0. Dependent parameter B33 comes from ½ + ½ * (B11 + B21) + β/2 – B23 * (1 - B21) so B33 = ½ + ½ * ½ + 1/8 – 0 * ¾ = 0.875. Player three has the sub-family where C11 = 0. Note C11 can take any value in the range 0 <= C11 <=min {½, (2 – B11)/(3 + 2B11 + 2B21) } so C11 <= min{ ½ , 0.4375 } but we choose C11 = 0 since it will give us the strongest strategy profile against any other strategy profile. Dependent parameter C21 comes from ½ – C11 = 1/2. Independent parameter C33 can take range ½ – B32 <= C33 <= ½ – B32 + ¾ * (B11 + B21) + β/4 so - 0.5 <= C33 <= 0, and we pick 0. Independent parameter C34 can take range 0 <= C34 <= 1, and we picked 1.