



1. History Matrix: Every time a rock (R2) is thrown after a rock (R1), the value of (R1,R2) increases by 1. This updates the history of throws

	R2	P2	S2
R1	1	1	1
P1	1	1	1
S1	1	1	1

→

	R2	P2	S2
R1	2	1	1
P1	1	1	1
S1	1	1	1

2. Likelihood is calculated from the history matrix. Such that $P(P2|R1) = 1 / (2 + 1 + 1) = 1/4$
 $P(P2|P1) = 1 / (1 + 1 + 1) = 1/3$... etc.

3. The probability of R2, P2, S2 are calculated and next computer throw is based on max prob from R2, P2, S2

i.e. $P(R2) = P(R1) * P(R2|R1) + P(P1) * P(R2|P1) + P(S1) * P(R2|S1)$

4. The posterior is calculated and used as the new prior for the next round of the game.

Posterior = Prior * Likelihood / (sum (prior*likelihood))

i.e. $P(R1|P2) = P(R1) * P(P2|R1) / (P(R1) * P(P2|R1) + P(P1) * P(P2|P1) + P(S1) * P(P2|S1))$