

A model of classical quantum computing method

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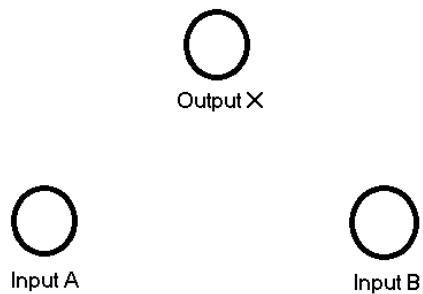
Here, introduced a model of classical computing method using electric field. This could produce wireless logic circuit. In this model, electric field is used to transfer bit signals. Transfer method might be applied by optical or other physical properties or combined devices.

1) Hardware design of logic gate,

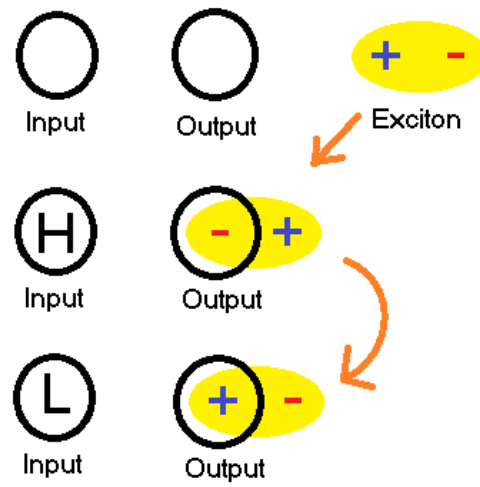
OR gate; Input A and B will generate each electric fields. Generating electric field means input is high. Output X receives electric potential to conduct if either of input generates field.



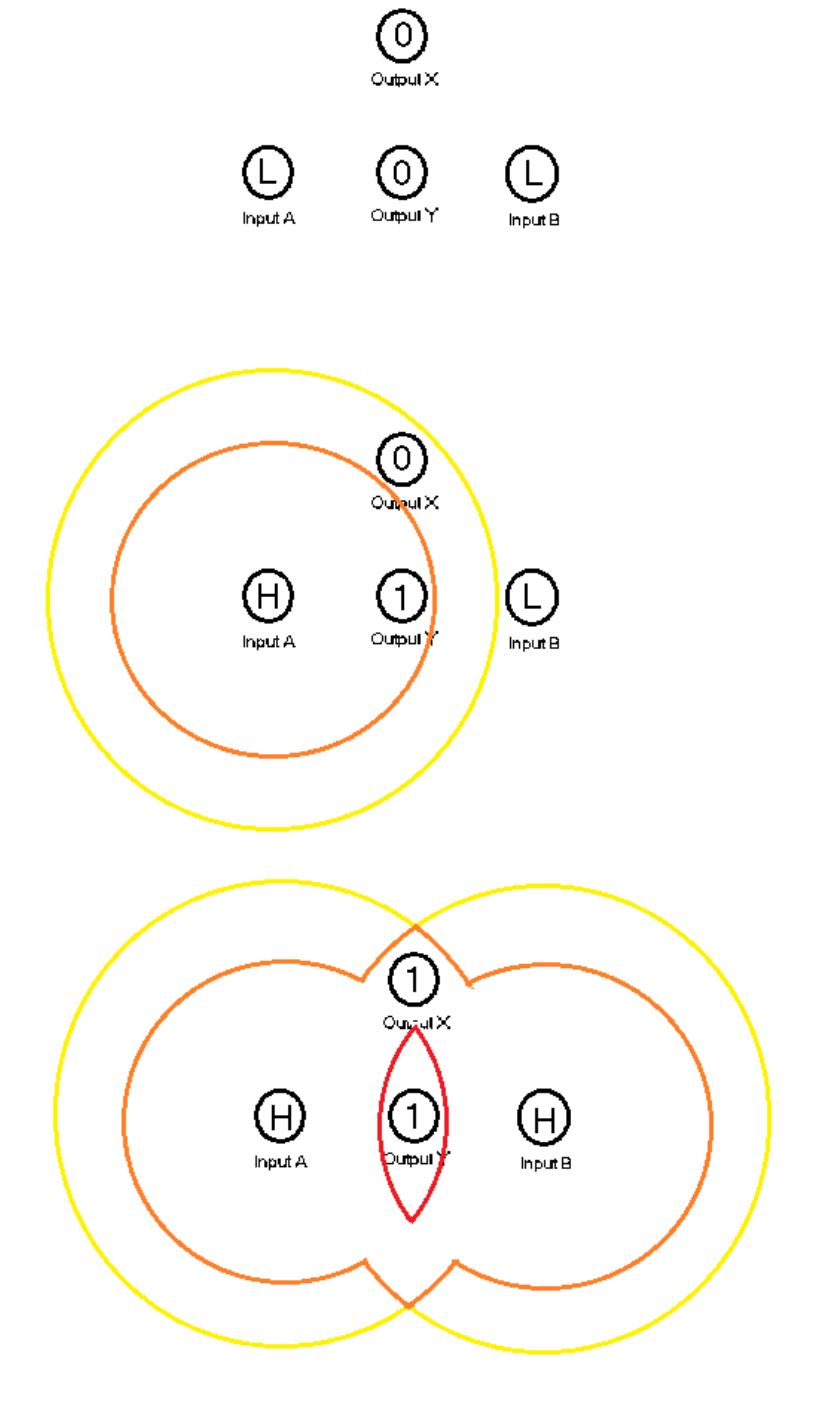
AND gate; Output X is placed at a little far from Inputs than OR gate. Therefore it can conduct only when both inputs generate fields at the same time.



NOT gate; NOT gate could be embedded on logic board as existing modules or at quantum level operation, trapping exciton on output's edge could result inverse as exciton would flip by electric field generated by input.



Combo gate; The picture below shows the combination gate of AND and OR. Three cases show how electric fields are generated and conduct outputs.



2) Conclusions

These gate designs could scale down to atomic scale (1 bit = 1 electron at minimum, possibly) by using graphene or carbon nano tube, or even at larger scale, this new classical computing method may overcome several hardware limitations encountered in these days.

In this model using electric field, the difference between AND and OR gate is represented to the distance of Output from each input. In the different approach with other transfer method of bit signals, the distance could be replaced to any value of properties which can recognize AND or OR.