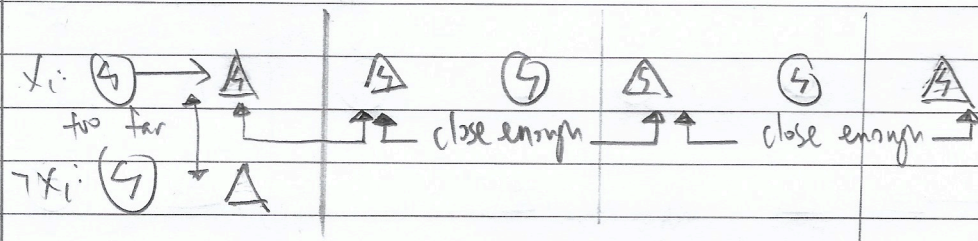


⑤ Now we are going to show how a true literal will power a socket. Recall the literal instance and clause instance of PLUNET; and if we place them adjacent to each other:

Literal		$C_1: (x_1 \vee x_2 \vee x_3)$	$C_2: (x_1 \vee \neg x_2 \vee x_3)$	$C_3: (\neg x_1 \vee \neg x_2 \vee \neg x_3)$
$x_1: \textcircled{4}$	Δ	Δ \bigcirc	Δ \bigcirc	Δ
$\neg x_1: \textcircled{4}$	Δ	Δ	Δ	Δ \bigcirc

Note that the column distance between each broadcast node is far enough, but the row broadcast node's distances are close enough to power all the nodes in the same row. For example, x_1 is true.



⑥ Next, we are going to show the 3-SAT instance maps to a PLUNET instance. For example, the 3-SAT is $(x_1 \vee x_2 \vee x_3) \wedge (x_1 \vee \neg x_2 \vee x_3) \wedge (\neg x_1 \vee \neg x_2 \vee \neg x_3)$

Literal		$C_1: (x_1 \vee x_2 \vee x_3)$	$C_2: (x_1 \vee \neg x_2 \vee x_3)$	$C_3: (\neg x_1 \vee \neg x_2 \vee \neg x_3)$
$x_1: \textcircled{4}$	Δ	Δ \bigcirc	Δ \bigcirc	Δ
$\neg x_1: \textcircled{4}$	Δ	Δ	Δ	Δ \bigcirc
$x_2: \textcircled{4}$	Δ	Δ \bigcirc	Δ	Δ
$\neg x_2: \textcircled{4}$	Δ	Δ	Δ \bigcirc	Δ \bigcirc
$x_3: \textcircled{4}$	Δ	Δ \bigcirc	Δ \bigcirc	Δ
$\neg x_3: \textcircled{4}$	Δ	Δ	Δ	Δ \bigcirc