

# Les tables de fonctionnements des bascules

| <table><tr><th>R</th><th>S</th><th>Q+</th></tr><tr><td>0</td><td>0</td><td><math>\overline{Q}</math></td></tr><tr><td>0</td><td>1</td><td>1</td></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td><td><i>Impossible</i></td></tr></table>         | R              | S                 | Q+ | 0              | 0 | $\overline{Q}$ | 0                                                                                                                                                                                                                                                                                                        | 1                  | 1 | 1                 | 0 | 0                 | 1 | 1                 | <i>Impossible</i> | <table><tr><th>Q <math>\rightarrow</math> Q+</th><th>R</th><th>S</th></tr><tr><td><math>0 \rightarrow 0</math></td><td>0</td><td>0</td></tr><tr><td><math>0 \rightarrow 1</math></td><td>0</td><td>1</td></tr><tr><td><math>1 \rightarrow 0</math></td><td>1</td><td>0</td></tr><tr><td><math>1 \rightarrow 1</math></td><td>0</td><td>0</td></tr></table> | Q $\rightarrow$ Q+ | R | S | $0 \rightarrow 0$ | 0 | 0 | $0 \rightarrow 1$ | 0 | 1 | $1 \rightarrow 0$ | 1 | 0 | $1 \rightarrow 1$ | 0 | 0 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----|----------------|---|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---|-------------------|---|-------------------|---|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---|---|-------------------|---|---|-------------------|---|---|-------------------|---|---|-------------------|---|---|
| R                                                                                                                                                                                                                                                                   | S              | Q+                |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | 0              | $\overline{Q}$    |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | 1              | 1                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | 0              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | 1              | <i>Impossible</i> |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| Q $\rightarrow$ Q+                                                                                                                                                                                                                                                  | R              | S                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 1$                                                                                                                                                                                                                                                   | 0              | 1                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 0$                                                                                                                                                                                                                                                   | 1              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 1$                                                                                                                                                                                                                                                   | 0              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| <table><tr><th>J</th><th>K</th><th>Q+</th></tr><tr><td>0</td><td>0</td><td><math>\overline{Q}</math></td></tr><tr><td>0</td><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td><td>1</td></tr><tr><td>1</td><td>1</td><td><math>\overline{Q}</math></td></tr></table> | J              | K                 | Q+ | 0              | 0 | $\overline{Q}$ | 0                                                                                                                                                                                                                                                                                                        | 1                  | 0 | 1                 | 0 | 1                 | 1 | 1                 | $\overline{Q}$    | <table><tr><th>Q <math>\rightarrow</math> Q+</th><th>J</th><th>K</th></tr><tr><td><math>0 \rightarrow 0</math></td><td>0</td><td>0</td></tr><tr><td><math>0 \rightarrow 1</math></td><td>1</td><td>0</td></tr><tr><td><math>1 \rightarrow 0</math></td><td>0</td><td>1</td></tr><tr><td><math>1 \rightarrow 1</math></td><td>0</td><td>0</td></tr></table> | Q $\rightarrow$ Q+ | J | K | $0 \rightarrow 0$ | 0 | 0 | $0 \rightarrow 1$ | 1 | 0 | $1 \rightarrow 0$ | 0 | 1 | $1 \rightarrow 1$ | 0 | 0 |
| J                                                                                                                                                                                                                                                                   | K              | Q+                |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | 0              | $\overline{Q}$    |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | 1              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | 0              | 1                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | 1              | $\overline{Q}$    |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| Q $\rightarrow$ Q+                                                                                                                                                                                                                                                  | J              | K                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 1$                                                                                                                                                                                                                                                   | 1              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              | 1                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 1$                                                                                                                                                                                                                                                   | 0              | 0                 |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| <table><tr><th>T</th><th>Q+</th></tr><tr><td>0</td><td><math>\overline{Q}</math></td></tr><tr><td>1</td><td><math>\overline{Q}</math></td></tr></table>                                                                                                             | T              | Q+                | 0  | $\overline{Q}$ | 1 | $\overline{Q}$ | <table><tr><th>Q <math>\rightarrow</math> Q+</th><th>T</th></tr><tr><td><math>0 \rightarrow 0</math></td><td>0</td></tr><tr><td><math>0 \rightarrow 1</math></td><td>1</td></tr><tr><td><math>1 \rightarrow 0</math></td><td>1</td></tr><tr><td><math>1 \rightarrow 1</math></td><td>0</td></tr></table> | Q $\rightarrow$ Q+ | T | $0 \rightarrow 0$ | 0 | $0 \rightarrow 1$ | 1 | $1 \rightarrow 0$ | 1                 | $1 \rightarrow 1$                                                                                                                                                                                                                                                                                                                                          | 0                  |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| T                                                                                                                                                                                                                                                                   | Q+             |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | $\overline{Q}$ |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | $\overline{Q}$ |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| Q $\rightarrow$ Q+                                                                                                                                                                                                                                                  | T              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 1$                                                                                                                                                                                                                                                   | 1              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 0$                                                                                                                                                                                                                                                   | 1              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 1$                                                                                                                                                                                                                                                   | 0              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| <table><tr><th>D</th><th>Q+</th></tr><tr><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td></tr></table>                                                                                                                                                             | D              | Q+                | 0  | 0              | 1 | 1              | <table><tr><th>Q <math>\rightarrow</math> Q+</th><th>D</th></tr><tr><td><math>0 \rightarrow 0</math></td><td>0</td></tr><tr><td><math>0 \rightarrow 1</math></td><td>1</td></tr><tr><td><math>1 \rightarrow 0</math></td><td>0</td></tr><tr><td><math>1 \rightarrow 1</math></td><td>1</td></tr></table> | Q $\rightarrow$ Q+ | D | $0 \rightarrow 0$ | 0 | $0 \rightarrow 1$ | 1 | $1 \rightarrow 0$ | 0                 | $1 \rightarrow 1$                                                                                                                                                                                                                                                                                                                                          | 1                  |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| D                                                                                                                                                                                                                                                                   | Q+             |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 0                                                                                                                                                                                                                                                                   | 0              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| 1                                                                                                                                                                                                                                                                   | 1              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| Q $\rightarrow$ Q+                                                                                                                                                                                                                                                  | D              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $0 \rightarrow 1$                                                                                                                                                                                                                                                   | 1              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 0$                                                                                                                                                                                                                                                   | 0              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |
| $1 \rightarrow 1$                                                                                                                                                                                                                                                   | 1              |                   |    |                |   |                |                                                                                                                                                                                                                                                                                                          |                    |   |                   |   |                   |   |                   |                   |                                                                                                                                                                                                                                                                                                                                                            |                    |   |   |                   |   |   |                   |   |   |                   |   |   |                   |   |   |