Examples

mutual exclusion:

\[ \square (\neg \text{crit}_1 \lor \neg \text{crit}_2) \]

once red, the light cannot become green immediately:

\[ \square (\text{red} \rightarrow \neg \lozenge \text{green}) \]

every request will eventually lead to a response:

\[ \square (\text{request} \rightarrow \lozenge \text{response}) \]

once red, the light always becomes green eventually after being yellow for some time:

\[ \square (\text{red} \rightarrow \lozenge (\text{red} \cup (\text{yellow} \land \lozenge (\text{yellow} \cup \text{green})))) \]