adjacency for robot
$$i \in \{1, 2\}$$

$$\Box(\bigcirc \varphi_{i_{r_1}}^c \Rightarrow \bigcirc \varphi_{i_{r_1}} \lor \bigcirc \varphi_{i_{r_2}} \lor \bigcirc \varphi_{i_{r_3}})$$

$$\wedge \Box(\bigcirc \varphi_{i_{r_2}}^c \Rightarrow \bigcirc \varphi_{i_{r_1}} \lor \bigcirc \varphi_{i_{r_2}} \lor \bigcirc \varphi_{i_{r_3}})$$

$$\wedge \Box(\bigcirc \varphi_{i_{r_3}}^c \Rightarrow \bigcirc \varphi_{i_{r_1}} \lor \bigcirc \varphi_{i_{r_3}} \lor \bigcirc \varphi_{i_{r_3}})$$

$$\wedge \Box(\bigcirc \varphi_{i_{r_3}}^c \Rightarrow \bigcirc \varphi_{i_{r_1}} \lor \bigcirc \varphi_{i_{r_3}} \lor \bigcirc \varphi_{i_{r_3}})$$

$$\wedge \Box(\bigcirc \varphi_{i_{r_4}}^c \Rightarrow \bigcirc \varphi_{i_{r_2}} \lor \bigcirc \varphi_{i_{r_3}} \lor \bigcirc \varphi_{i_{r_4}})$$