Lemma. For any $P, Q \in Ob_{DP}$, the design problem $br_{P,Q}: P \times Q \longrightarrow Q \times P$ given by

$$\operatorname{br}_{\mathbf{P},\mathbf{Q}}(\langle a_1,b_1\rangle^*,\langle b_2,a_2\rangle):=(a_1\leq_{\mathbf{P}}a_2)\wedge(b_1\leq_{\mathbf{Q}}b_2)$$

constitutes the braiding operation for a symmetric monoidal structure on $\langle \mathbf{DP}, \otimes, \{\bullet\} \rangle$. In other words, $\langle \mathbf{DP}, \otimes, \{\bullet\}, \mathbf{br} \rangle$ is a symmetric monoidal category.