Proposition I.31

To construct a parallel line to a given line through a given point not on the line.

Construction: Given line $AB$ and point $C$ not on the line $AB$. Pick any point on $AB$ named $D$. Connect $CD$. [Prop.1] Create an angle $\angle ECD$ that is on the opposite side of line $CD$ respect with $\angle CDB$, such that $\angle ECD = \angle CDB$ [I.23]. Extend $EC$ to point $F$.

Since $\angle ECD = \angle CDB$ are interior angles to $EA$ and $AB$ through straight line $DC$ that stands on $EA$ and $AB$, by proposition I.27, $EF \parallel AB$. Q.E.F