The main objective of this project was to create a framework for holistic ideation and research about the technical issues involved in creating a holistic approach for conceptual design. Towards that goal, we explored different components of ideation (both logical and intuitive), characterized ideation states, and found new ideation blocks with strategies used to overcome them. One of the major contributions of this research is the method by which easy traversal between different ideation methods with different components were facilitated, to support both creativity and functional quality which is important for engineering design. Another important part of the framework is the sensing of ideation states and investigation of matching ideation strategies most likely to facilitate progress. Some of the ideation methods embedded in the initial holistic test bed are Physical effects search tool, Working principles search tool, TRIZ, Bio-TRIZ and Artifacts search tool. Repositories were created for each of those. This framework will also be used as a research tool to collect large amount of data from designers about their choice of ideation strategies used, and their effectiveness. Effective documentation of design ideation paths is also facilitated using this holistic approach.