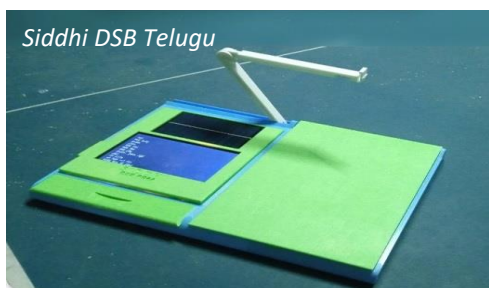


## One Code for All Indian Languages

Our Journey so far... Dreamchip Electronics Private Limited | November 2022



<h3>Challenge</h3>	<p>There are 22 languages in India spoken by ~140 crore people. In the digital age, <b>knowledge sharing</b> for education, telecom, defence, banking, manufacturing, research and administration is a major challenge.</p>
<h3>Solution requires</h3>	<ul style="list-style-type: none"> <li>• “One Code for all Indian Languages” leveraging the similarity in the “Varnamala” that forms the foundation for words and sentences in all the Indian languages.</li> <li>• Affordable Smart Information Devices (<b>SID</b>) that support the above code.</li> <li>• A System-on-Chip (<b>SoC</b>) design for building the above SIDs</li> </ul>
<h3>Imagine</h3>	<ul style="list-style-type: none"> <li>• National anthem, “Jana Gana Mana...” coded <b>Once</b> for all Indian languages and rendered in any language!</li> <li>• Children having access to learning material in their language and on their SID.</li> </ul>
<h3>Dreamchip Siddhi SID</h3>	<ul style="list-style-type: none"> <li>• <b>SANSKRITI</b> - An efficient code specification for all Indian languages developed by Dreamchip &amp; published by SCCI.</li> <li>• <b>Siddhi Digital School Bag</b> - An SID designed and developed for the Indian Child</li> <li>• <b>SiddhiLite</b> – A 32-bit synthetic processor and SoC with support for SANSKRITI realized on a low-cost FPGA</li> </ul>
<h3>Technology</h3>	<p>Dreamchip used SANKHYA Teraptor SPDP (Synthetic Processor Design Platform) an advanced Indian technology for developing <b>Siddhi SoC</b>.</p>
<h3>Road Ahead</h3>	<ul style="list-style-type: none"> <li>• Add script (Lipi) support for all Indian languages</li> <li>• Integrate NLP and Machine Translation for Bharata Bala Siksha</li> <li>• Add <b>Upamaedha (SOIL)</b> voice input and output support</li> <li>• Scale to meet demand across India</li> </ul>



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**#AatmaNirbharBharat**  
 With  
**Siddhi**

**#AmritKaal**