


**Department of Science & Technology DST BID-HUB, PGIMER, CHANDIGARH Proposal Form**

Project Title	Toy distractor for injection
Principal Investigator	Dr.S.Parthiban MDS,PhD Reader, Periododontics, Adhiparasakthi dental college and hospital, Melmaruvathur.
Co-PI	Dr. Siva sankari MDS,PhD Professor, Periodontics Adhiparasakthi dental college and hospital, Melmaruvathur. Dr. Ebenezer MDS, Reader, Periodontics Adhiparasakthi dental college and hospital, Melmaruvathur. Dr. Y. Pradeepkumar MDS. Professor and HOD Periodontics, Adhiparasakthi dental college and hospital, Melmaruvathur. Dr.Selvabalaji MDS., Reader , Pedodontics Adhiparasakthi dental college and hospital, Melmaruvathur.
Industry Partner	Adhiparasakthi dental college and hospital.
Manpower	5
Equipment	3d printer
Total project cost	6 lakhs
Project Duration	1month
Project Objectives	Injection causes fear to children before dental procedure,rather than the pain during injection the injection needle and carrier causes fear. To overcome it , Toy distractor injection holder is designed .It can reduce the fear to a high percentage

<b>Deliverables:</b>	Toy distractor with injection holder
<b>Novelty:</b>	1 <sup>st</sup> of its kind .
<b>Details of Proof of Concept:</b>	
<b>Commercialization plan</b>	To be commercialized and available to pedodontist and general dentist treating pedodontic patients
<b>Clinical Addressed/Alternative methods/Gold Standard</b>	<b>Need</b> Pedodontics needs,normal pedo injection
<b>Software and Hardware Component of the project</b>	3d AUTO CAD SOFTWARE, 3d printer

## **Abstract of the project.**

Majority of dental treatments done under local anaesthesia. Fear scale indicates the injection of local anesthesia before the procedure causes high values <sup>1</sup>. Pedodontist encounter this as problem as childrens become uncooperative during the dental procedures fearing of the injection procedure in the clinics <sup>2</sup>. rather than the pain factor the anxiety of injection caused by the needle and carrier of the injection instrument is more <sup>3</sup>. To overcome this anxiety and increase cooperative toy distractor with injection holder is designed. Which reduce the anxiety and increase the cooperation during the procedure.

## **References**

1. Celik, F., Edipoglu, I.S. Evaluation of preoperative anxiety and fear of anesthesia using APAIS score. Eur J Med Res 23, 41 (2018). <https://doi.org/10.1186/s40001-018-0339-4>
2. Suprabha B S, Rao A, Choudhary S, Shenoy R. Child dental fear and behavior: The role of environmental factors in a hospital cohort. J Indian Soc Pedod Prev Dent 2011;29:95-101
3. Kuscu OO, Akyuz S. Is it the injection device or the anxiety experienced that causes pain during dental local anaesthesia? Int J Paediatr Dent. 2008 Mar;18(2):139-45. doi: 10.1111/j.1365-263X.2007.00875.x. PMID: 18237297.

**Budget Details:**

Sr. No.	Items	Budget( in Lakhs)			
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	Salaries/ Wages excluding HRA	1			1
2.	Equipment	1			1
3.	Consumables	1			1
4.	Travel	1			1
5.	Contingencies	1			1
6.	Overhead Expenses*	1			1
Total		6			6