

MAGICSTICKS – Innovative drum stick assembling

The Institute of Electronic (IfE) realized the idea of two students at the HTA into a complete successful product for the music market.



Motivation

Drum musicians have the problem that they are well heart but their action is not too good seen by the audience. Especially in performance shows the audience would like to visually see the agility and virtuosity of the player.

Two innovative students of the HTA had the innovative idea of assembling drum sticks with bright colour-changeable LED. Drumsticks with LED at the tip will add the visual effect to the play most drumming sessions are lacking of.

Description

The first step of the project was to develop an electronic consisting of power controlling, rechargeable battery, LED and connector, which weight as little as possible. In a second step this designed was shrunk, so it would fit into a wooden drum stick. Besides the electronic development, a mechanical durable LED distribution tip was another major requirement.

The further challenge was to assemble and mount the shrunk electronic in the hollow stick. The solution found gives a maximum of optical qualities of light emission at the tip of the stick, best weight balance of the internal parts and highest stability thanks to perfect moulding of the electronic components.

During till the end of the development, mechanical durability simulations and tests were done to proof and qualify this product for highest quality attributes.

Results

The knowledge and experience at the IfE effectually helped to realize an idea by solving big requirement challenges into a full developed ready-for-the-market product. The IfE is proud to be part of supporting another young innovative start-up company.

Project

MAGICSTICKS

Project Duration

12 months

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