M-BITBEAM V. 1.1 BETA

What is **BITBEAM**?

BITBEAM is a construction and prototyping kit available for free (Open Source). The size fits with LEGO Technics/Mindstorms, so it is possible to combine both kits. All Bitbeam parts are designed so that they can be made at home from various materials with various technology (3D printing, CNC, laser cutting). System Bitbeam is an interesting and cheap alternative to various commercial and construction kits, especially in combination with with 3D printing. More info: www.bitbeam.org.

Why m-BITBEAM?

m-BITBEAM is a 3D printed construction kit, based on the Bitbeam concept adding some special parts like wheels, holders, boxes, etc. The electronic and programmable part of the kit is based on Arduino and its large "ecosystem" of various modules and senzors.

There are three main reasons for which m-Bitbeam exists. The first reason is the high price of the universal programmable kits like LEGO Midstorms. Thanks to the low price, m-Bitbeam is avalible for everyone (every child has its own kit at home). The second reason is much larger variability of Arduino for example senzors, motors, expanding modules etc. In that way they reveal unknown options and their projects can be not just more interesting but also reach into real life and praxis. There is nothing easier to go on the internet and see what is powered by Arduino today (3D printers, CNC machines, security systems, regulation systems, measuring systems, satelites, ...). The last reason is to spread knowledge about another technology – 3D printing. After absolving the basics of 3D modelling with children, they can easily design their own construction parts exactly for the needs of their project.



Repository of 3D models in STL format (for 3D printing): https://github.com/e-Mole/m-Bitbeam_Parts_for_3Dprint Repository of 3D models in DAT format (for preparation instructions, for example in MLCad + LPub): https://github.com/e-Mole/m-Bitbeam_Parts_for_LDraw