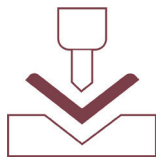




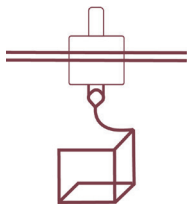
# SERITRONIC

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## Enclosures



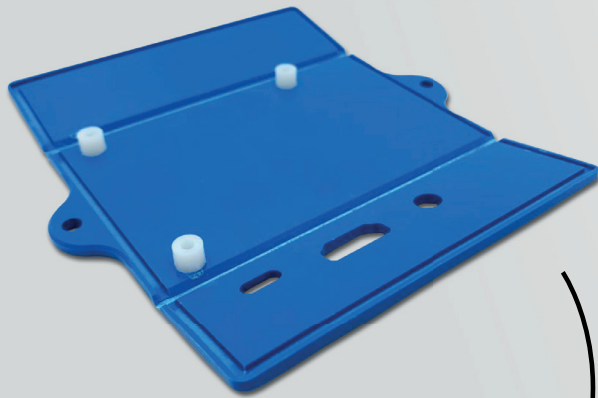
***Cutting and bending tech***



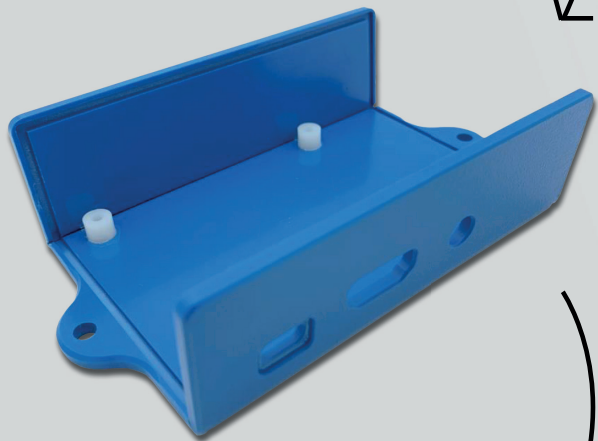
***3D printing***

***Additive manufacturing***

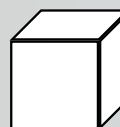
# Custom made enclosures - Without tooling costs



Highspeed cutting



Heating and bending



Final customized enclosure

**Complex shapes possible**



Example 180° bend round

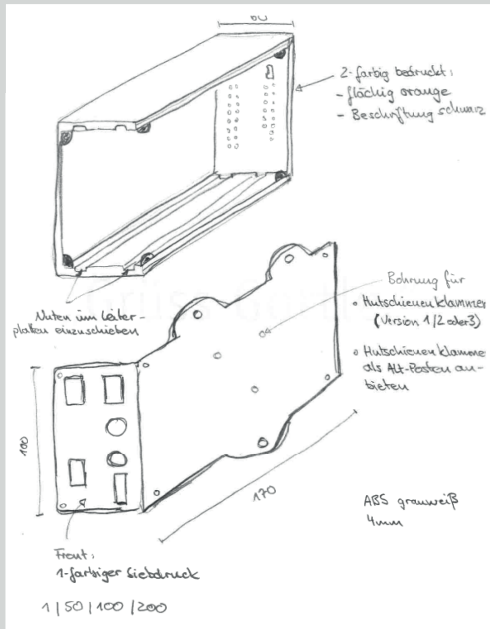


[www.seritronic.com](http://www.seritronic.com)

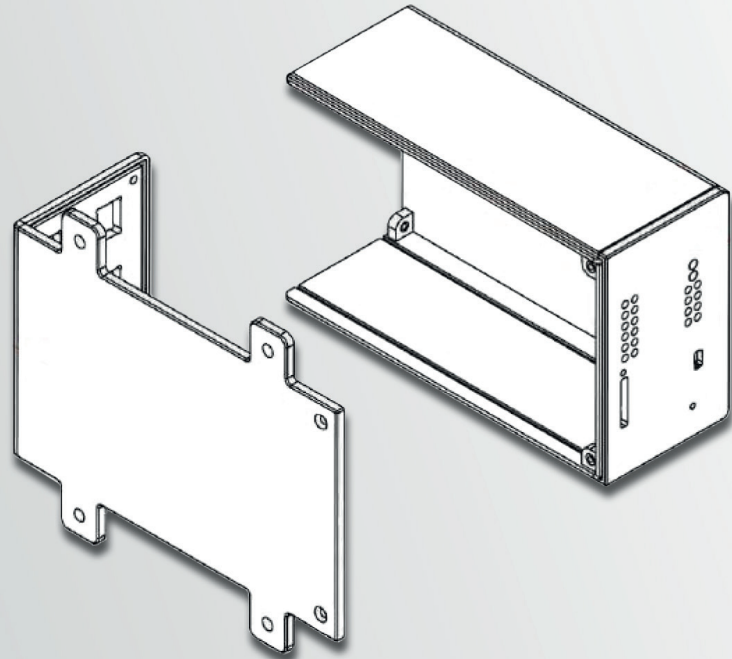
# How inquiries could look like

## - Just make a sketch only

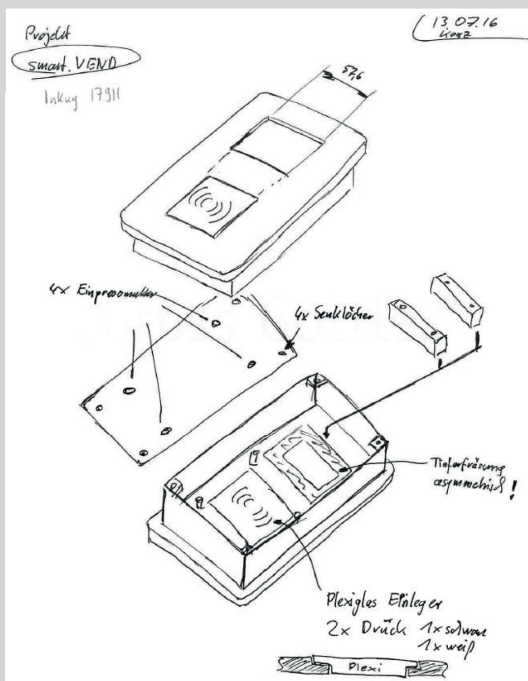
### Sketch for an inquiry



### Final drawing



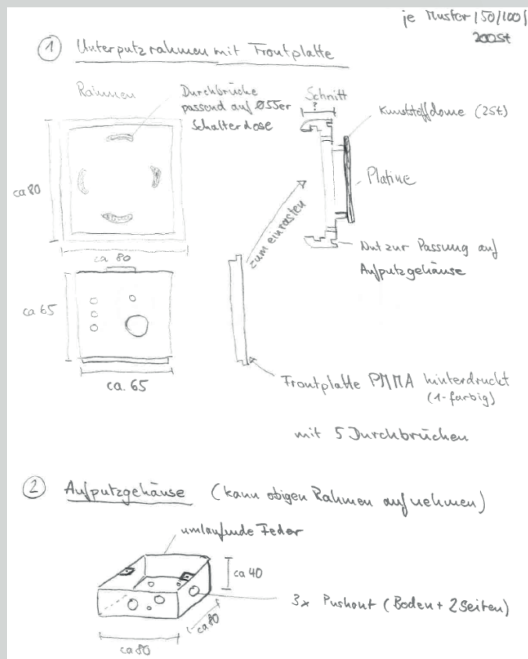
### Sketch for an inquiry



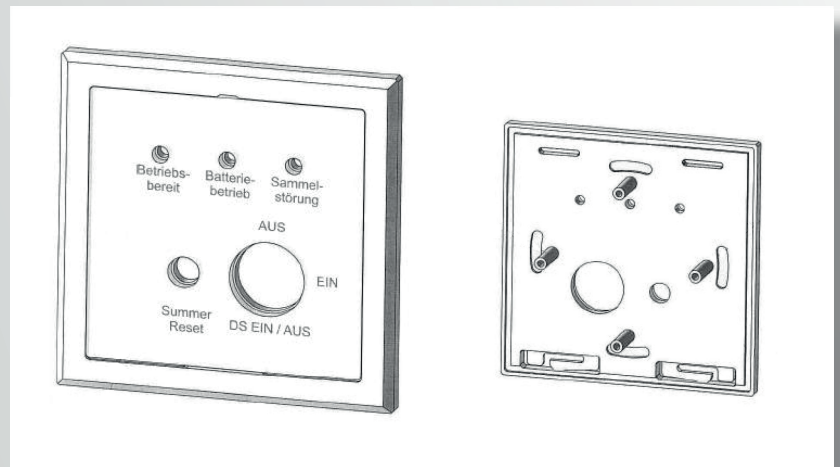
### Final drawing



## Sketch for an inquiry

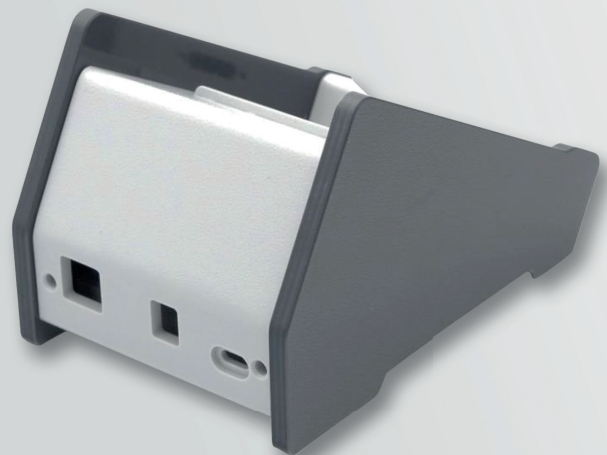


## Final drawing



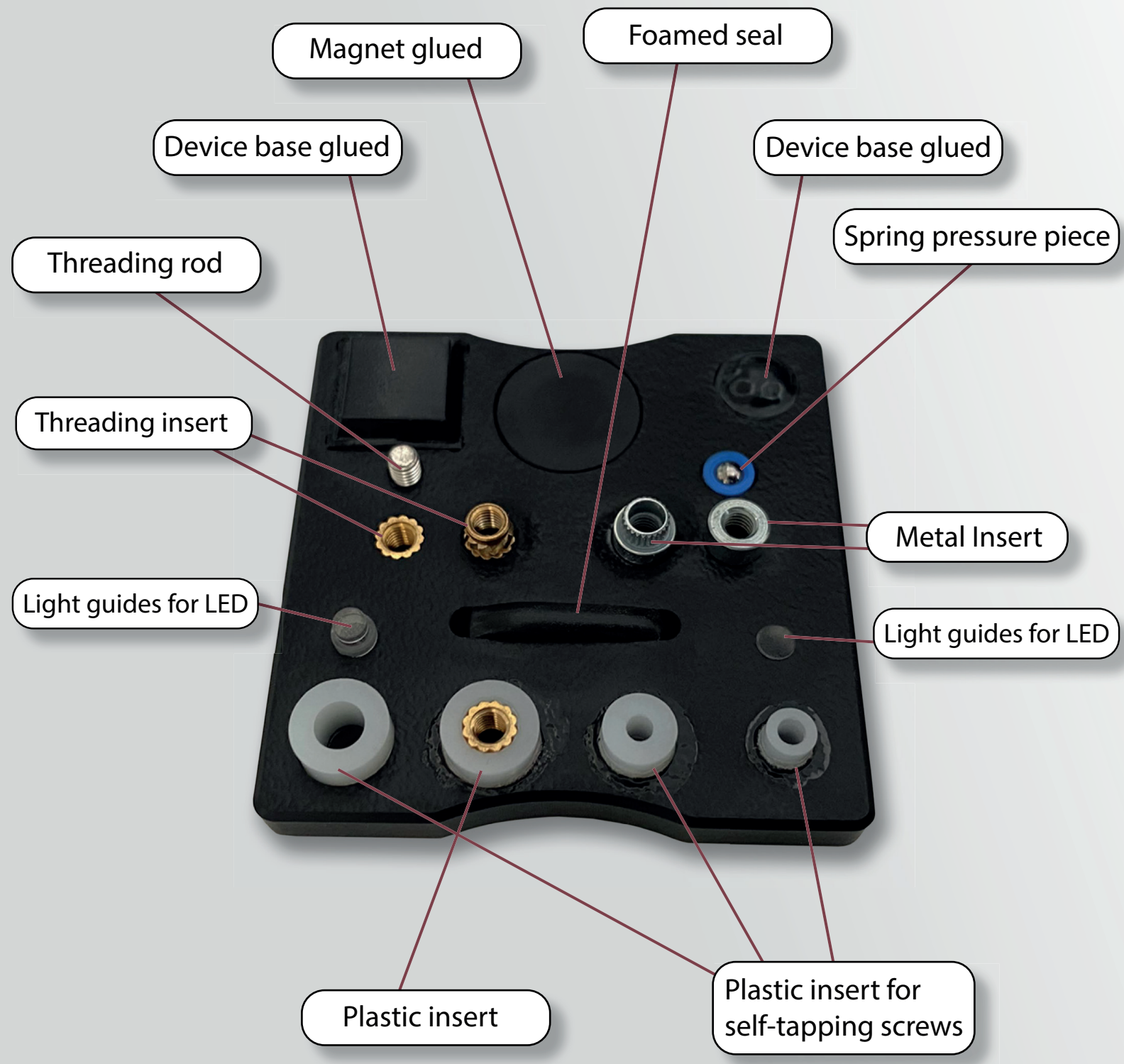


# Product examples



# Custom made enclosures

## - Without tooling costs





# Key factors - Advantages

No tooling costs at every quantity because there are no tools necessary

Enclosures ready to use in comparison to standard enclosures

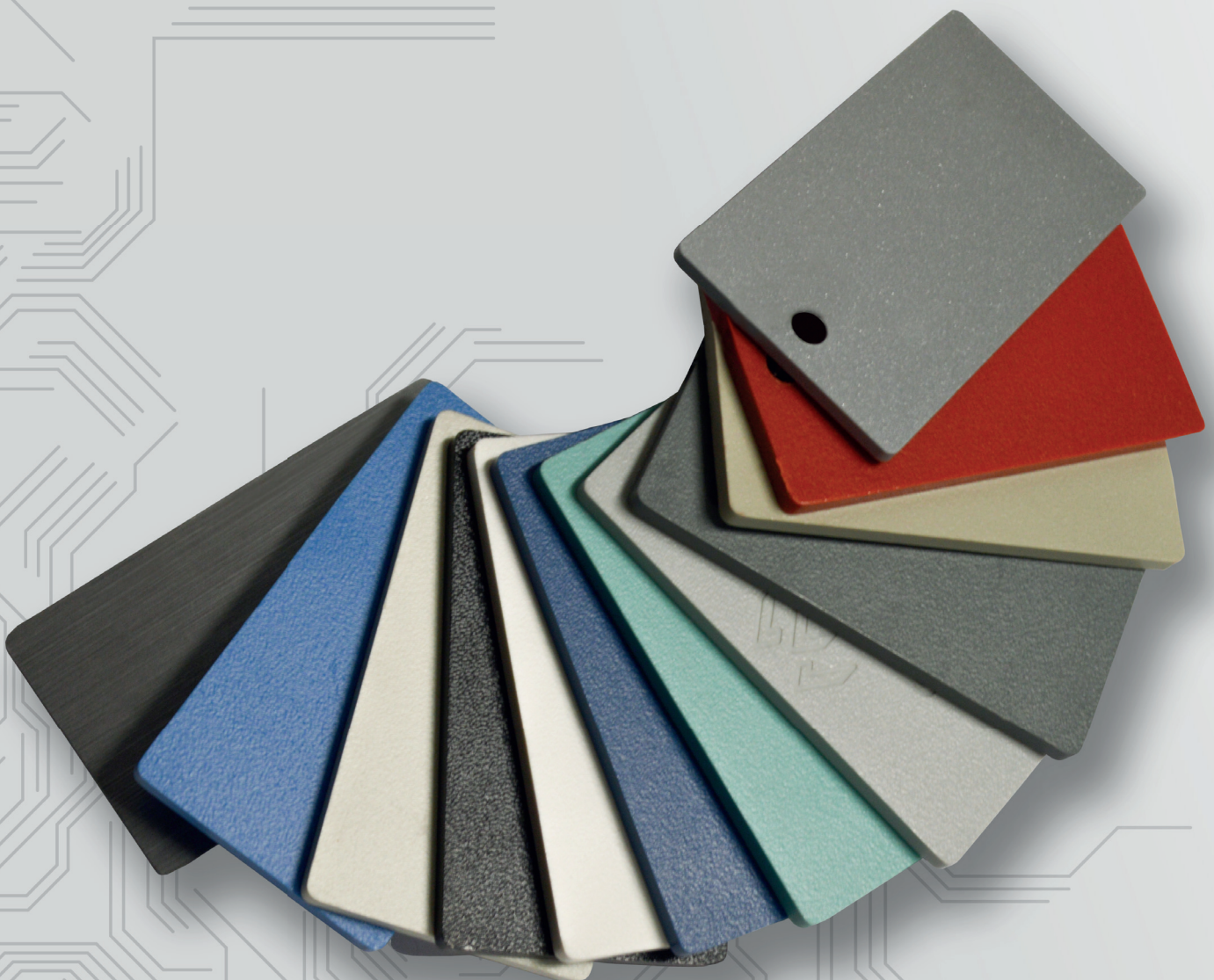
- *No rework or modification is necessary*

Thermoplastic materials (e.g. ABS, PC, PMMA, PS) + UL listed

Inserts, holes, domes and other elements are placed as needed for PCB, display, membrane

Free choice of raw material, sheet plastic 2 - 12 mm, different colours

Advancements in product life cycle are no problem at all



# 3D printing / Additive Manufacturing

## - AM technologies

- Customized design and new shapes
- Quick samples and serial production
- Enclosures and soft buttons are possible
- Short production time for haptic/tactile tests
- Quick assembling tests possible
- Small start-up costs compared to other plastic manufacturing technologies
- Test of injection moulding materials. Wide variety of thermoplastic materials processable (e.g., ABS, PLA, PA, PS)

### Hard enclosures + Soft 3D printed functional buttons



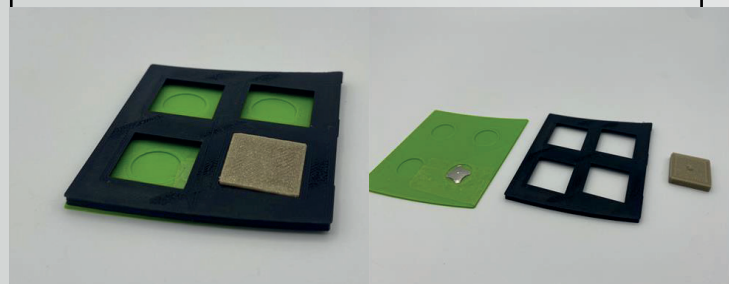
Variety of printing technologies for every shape and part

- Filament based
- Powder based (e.g., SLS)
- Liquid based (e.g., SLA)

### Soft buttons + Functioning light guide options



### Buttons + Keyboard components for haptically and tactile testing



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