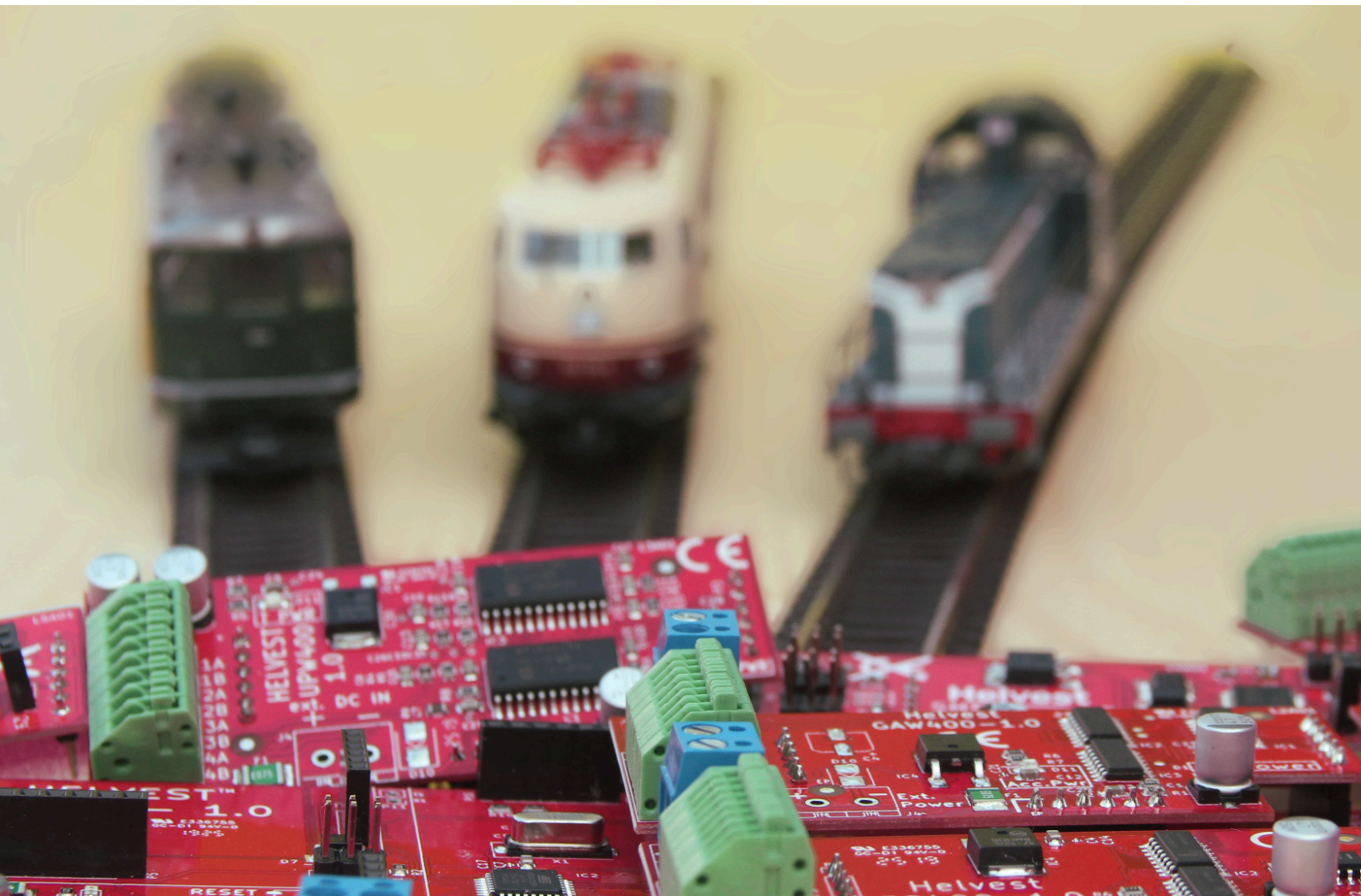# Helvest
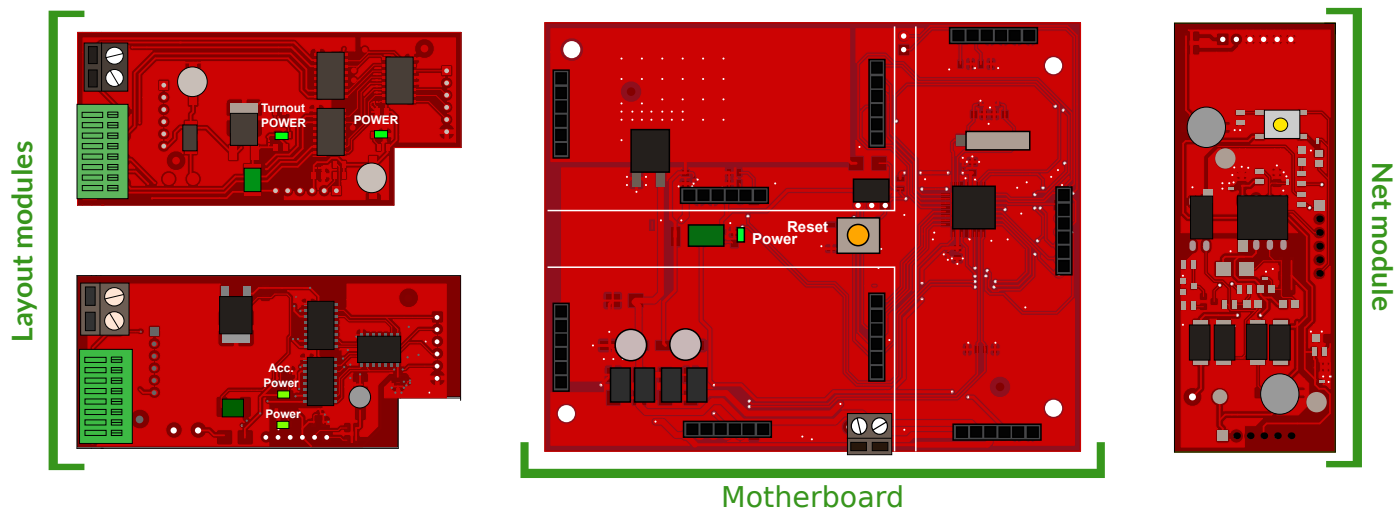
Decoder Catalog

OUR CHALLENGE

- High quality digital system for your layout, to satisfy both the expert and the beginner who is stil unsure about electronic systems;
- Just program the address and you are ready to go - the rest is programmed automatically
- High operating standard: not a jack of all trades system, but dedicated hardware to satisfy every need.
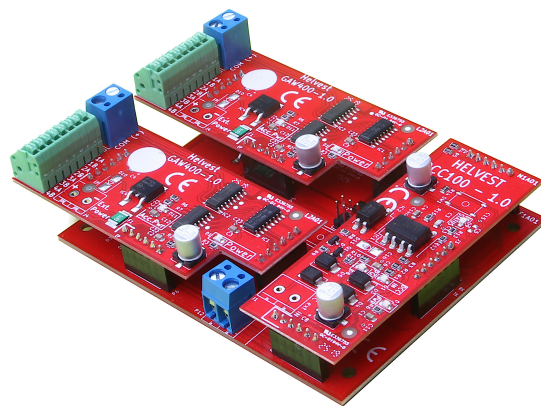
2021/22 EN

Layout modules · Motherboard · Net module

Our decoders are made in three parts: a motherboard, a Net module for communication (eg. DCC, these two elements should always be present), and two Layout modules to pilot accessories. This is the secret of our system: just choose the modules for your accessories (they can be of different types on a single motherboard), and the HP100 will automatically recognize them and will program itself to use them: you will not need to do anything more, just have fun.

Why choose Helvest Flex

- Because it makes you appreciate the advantages of a digital system without the complicated configuration.
- Because it is made to be reliable, high quality and easy to use.
- Because it is meant to be flessible, and it is upgradable at little expense.
- All this at a very interesting price!

Symbols used

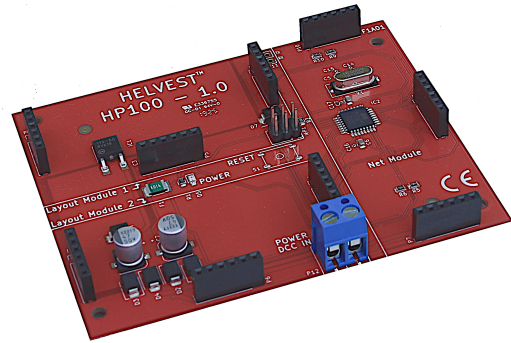|					
HP	Motherboard HP100	🛤	Turnout Module	🔘	Pushbutton Module
(N)	Net Module	🚦	Signal Module	**4x**	4-way Module
L	Layout Module	DCC	DCC Interface	**8x**	8-way Module

MOTHERBOARD

It is the real decoder, the real brain and the greatest innovation of the Flex system. Unlike other decoders on the market, its functions do not depend on complicated programming operations, but it programs itself automatically by recognizing the modules that are inserted. It takes care of everything, you just have to think about having fun with your model.

HP100

Insert the DCC 100 module in the appropriate connectors, program the address, insert the Layout modules you are interested in, and your decoder is ready!
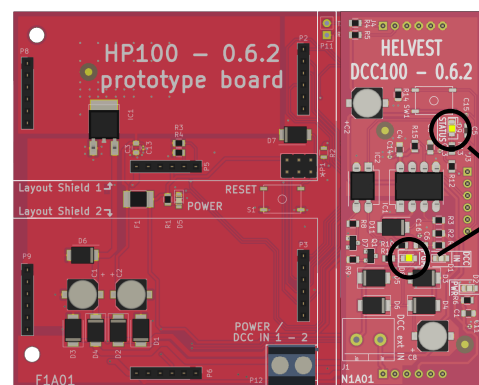
HP

NET MODULE

The "net" module, together with the HP100, is the other indispensable element of the Flex system. Currently only the module for DCC digital decoding is available. Other protocols will come later.
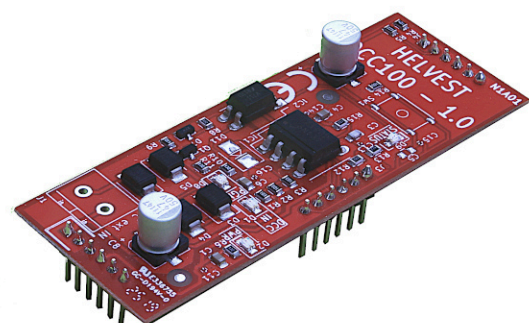
DCC100

Reads DCC signal. It's NMRA certified, so you're guaranteed an error-free reading and maximum reliability.

It comes standard with two LEDs to help you know when it's responding to programming and normal operating commands.

Compared to the most common accessory decoders, it gives programming confirmation to the DCC control unit without the need to add external elements.

LEDs

Program + DCC

SERVO MOTOR OPERATION

A common request by many users of the Helvest Flex system, ve prepared a module to operate up to 4 servos.

Servo motors are very used in Model Railroading thanks to their versatility. They can move very precisely, and can be used to actuate barriers in level crossings, switches, and in many other applications,

The SM400 module operates servo motors enabling very precise control on speed and initial and end positions. It also features an innovative protection system which will automatically temporarily arrest the motor in case of too high current absobtion.
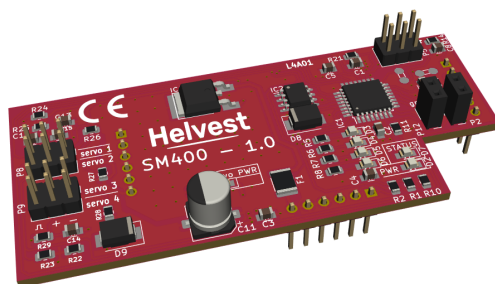
SM400

Runs up to 4 servo motors (max 8 on a complete decoder).
Pin headers are unified, and can be connected directly to any servo that follows the standard.
The speed, initial position and end position for each motor can be specified in CV settings.

4x

SM400'S PROTECTION SYSTEM

When using servo motor decoders, it may happen that for any reason (i.e. a phisical obstacle) the motor cannot move anymore. This situation oftentimes in common decoders can be problematic as the motor will continue to push on the obstacle, and can create a couple consequences: instability of the decoder that cannot output enough current to drive the motor, or phisical damage to the accessory in motion (switch points, bar is a level passage).

SM400 has a system that monitors strain on the motor, and after a set threshold, it stops it, signaling the problem through a LED, thus avioding any problems to the other accessories on the layout. The level of the protection can be set, or excluded completely if needed.

TURNOUT OPERATION

The Helvest Turnout modules are specific for each motor type. This simplifies quite a lot operations, as you need to only specify the address and eventually the action time, and you are then sure that the operations are optimized for your motor type.
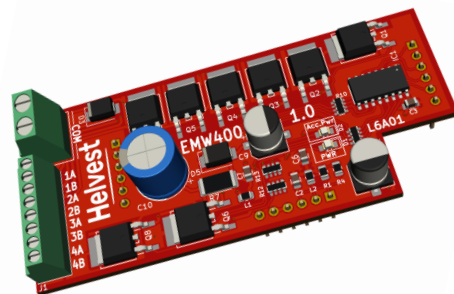
As in reality, the motors are actuated in succession and not at the same time.
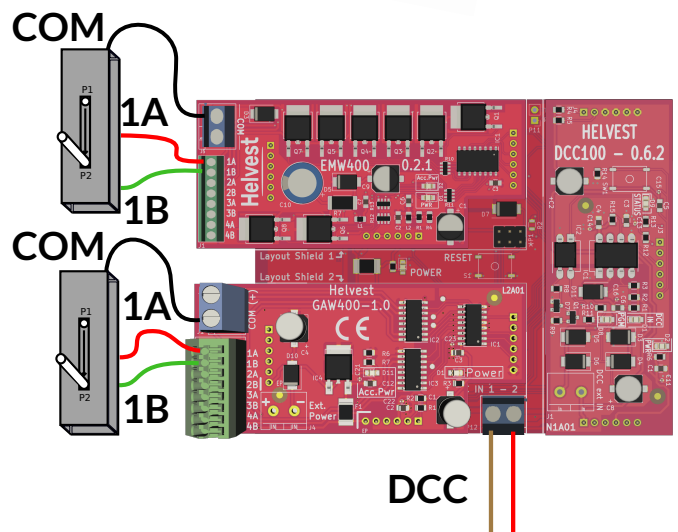
EMW400

Finally a module specifically made for the most common motor type: solenoids. It is possible to command up to four solenoids made for digital operations, like Peco® PL10-W, Roco® Line, Piko® A, Fleischmann® 640000 series and many others.

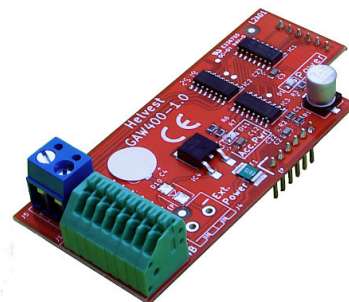EMW400 was strictly tested with millions of actuations of the most common motor types.

GAW400

Made for "slow action" motors with three wires and common anode, like MTB® MP1 o MP5. A single GAW400 can operate up to four.

GAW400 is the only accessoty on the market esplicitally made to operate three-wire slow motors. This assures an optimal performance and realistic speed.
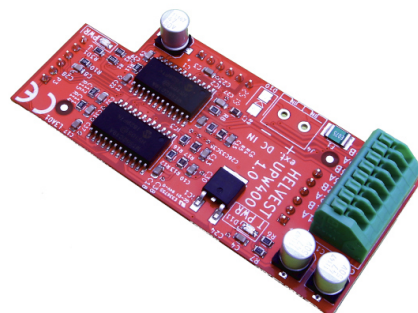

NEW
12/2021

COM
1A
1B
COM
1A
1B

DCC

UPW400

For slow motors "with two wires" such as ortoise®, Cobalt®, Conrad®,Tillig® and many more. With UPW400 you can operate up to four.

UPW400 is made to last, and not only this. Thanks to an intelligent porotection system from shorts and overcurrent, it also preserves your motor, slowing it in case of excessive load.

4x

SIGNAL OPERATION

The signal modules are made to work "plug and play" following the Helvest Flex philosofy. It is only necessary to insert them in the HP100 board and they are automatically configured without requiring complex programming operations. As usual only the address is needed. The module currently available permits to manage the most common signals found on the market. A more advanced board, to control complex signal aspects, is in the works.

ES400

With ES400 you can manage LED signals or with small lamps. You can operate up to four signals with two lights each.

It is also possible to operate signals with three aspects (for example red/greed/yellow) without any special configuration. The wiring is clearly exemplified in the manual.
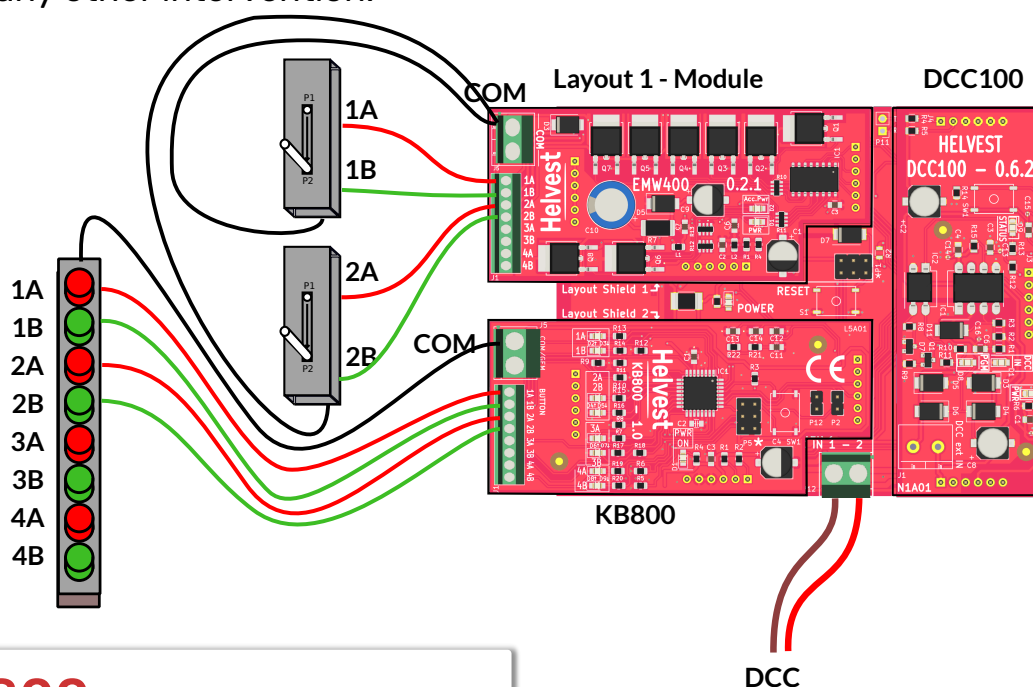
4x

MODULE FOR PUSH BUTTONS

How many model railroaders would like to combine the versatility of a digital system with a synoptic panel with buttons, perhaps to simplify the maneuvers in a station far from the digital control panel? The Helvest KB800 module is the answer to this need!

Combining a KB800 module to any other Layout module on the same decoder, as in the picture, the accessories can be controlled indifferently through the DCC central unit or through the buttons connected to the KB800. As always, without any configuration problem, just insert the KB800 module and the buttons work without any other intervention!
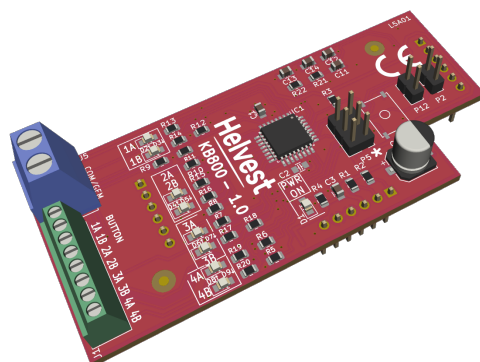

KB800

Connect up to 8 buttons. These will control the 4 devices connected to the other Layout module on the board: switches, signals, or servos, it doesn't matter.

Simply connect KB800 to your HP100, and it's ready to go.

It can also be used to quickly test, with a hand control, switches and signals connected to the decoder when they are installed.

NOVITA'
11/2021

OUR QUALITY

Our digital decoders are certified for DCC by the US NMRA. Helvest is recognized as an authorized manufacturer by the NMRA. All of our products are designed entirely in Switzerland and intended to last a long time without operational or software errors.

CONTACT US!

By choosing Helvest you can count on a fast and effective assistance service. For any information contact us, we will give you an answer within a short time.

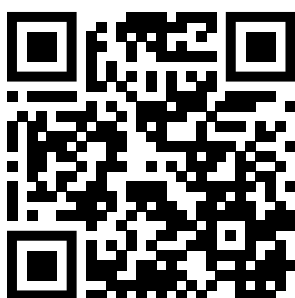To contact our customer service, before and after sales, you can use
- our website www.helvest.ch, section "assistance".
- the email at support@helvest.ch.
- our facebook page, www.facebook.com/Helvest.
- Whatsapp chat at +44 7937 427093.
You can write us in English, French, English or Italian.

Check out our video tutorials on youtube!

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You can find our products at some retailers or in our website www.helvest.ch
We have two different webshops, one for the European Union and one for Switzerland. In this way, wherever you are, you can shop without any worries of complications or costs due to customs!

Find more product details, documentation and more at www.helvest.ch