

Carrera Digital running more than 6 cars, is it possible?

Compared to analogue, digital is already a nice improvement to be able to run more cars on the same track. Partly due to the possibility of track changing, pit lane, digital offers many possibilities with a track width of 20 cm. In analogue, at least a 6-track track has to have the same number of cars running independently at the same time, but that takes extra space,.

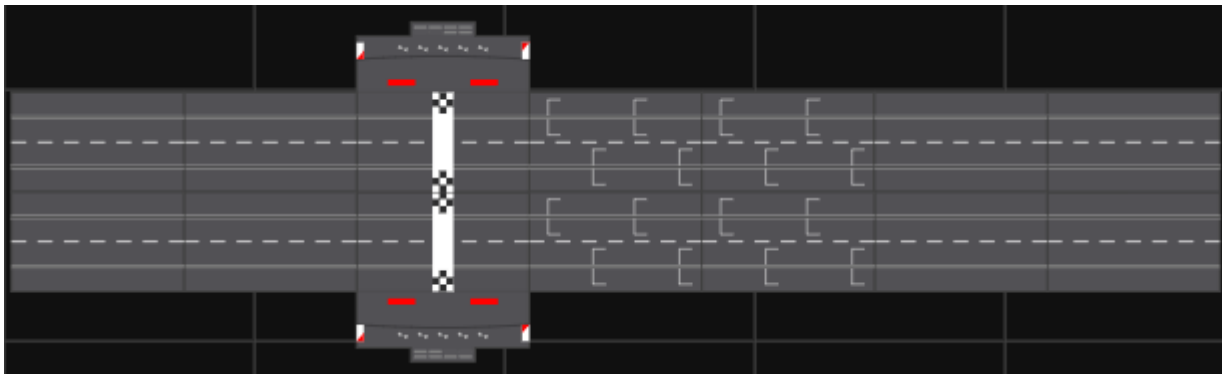
The track will be at least 60 cm wide!

Those who want to run more than 6 cars independently at the same time can achieve this as follows:

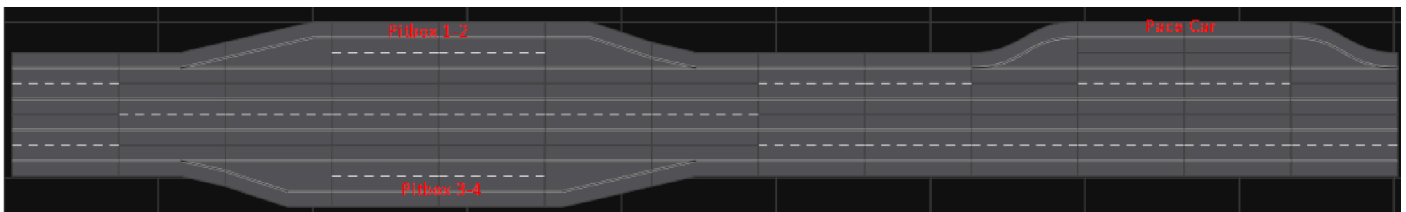
If you switch from 2 tracks to 4 tracks, the track becomes at least 40 cm wide.

This should then not be done with Carrera's 'Multistart Lane' (20030370).

You will need a 2nd CU and it will have to be modified, i.e. the control unit will have to be on the other side.

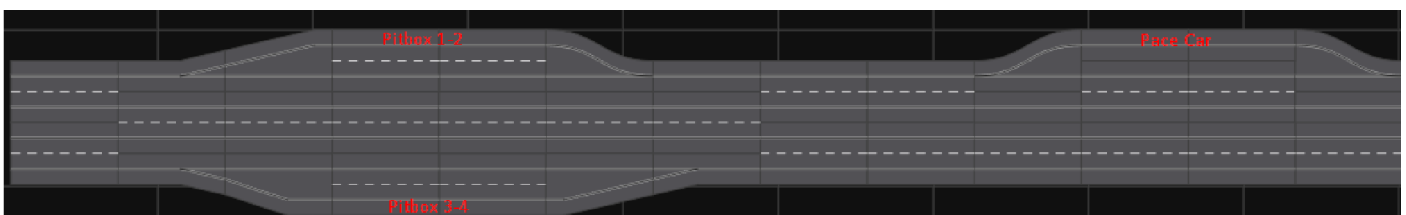


Starting position here for 12 cars



Pit lane for both lanes.

The Pace car does not need to be duplicated and will also drive into the Pit lane without adjusting the first change, alternatively this arrangement.



Track switch:



There should only be a track change between tracks 1-2 and 3-4.
In principle, both track sections (1-2) and (3-4) are completely galvanically separated!

Bend switches at the same time is not possible, but can be done as follows:

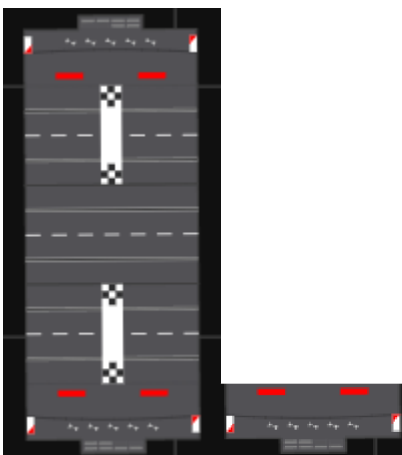


The whole layout can be built this way, without the 4 tracks not being able to lie next to each other.

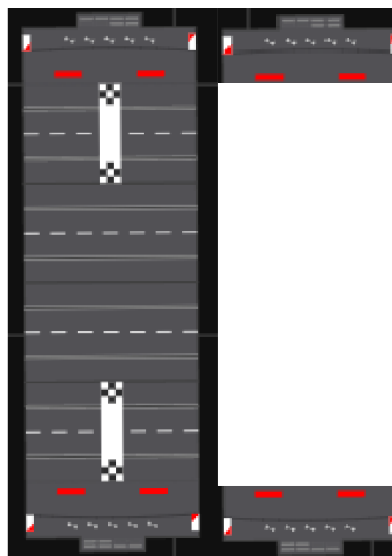
Expand to 6 and/or 8 tracks:

Expanding to even more tracks is possible but with some restrictions?

The 3rd and 4th Cu's need to be modified so that the track share is separate from the control unit, it should be placed separately somewhere.



6 track



8 track

Again, only tracks change between 1-2, 3-4, 5-6, 7-8!

A total of 8 tracks can then be driven with 24! Cars simultaneously and independently.

Pit lane:

For tracks 3..6 it is more difficult to make a pit lane, unless you increase the 2 outer pit lanes, then the 2 inner tracks underneath can have a pit lane, not like reality, but a solution.

Pit lanes 1-2 and 7-8 are then one floor higher than 3-4 and 5-6.

Time measurement and lap counting:

This can of course be done locally or with PC, you then need a computer per 2 tracks this will keep track of times and laps for each group of 6 cars.

Start all CUs at the same time!

This requires additional hardware, as the current race track software can only control 1 CU. In itself, this is not a problem, as long as the 'measurement' is simultaneous, i.e. all cars start at the same time.

The start command then does not come via the communication cable PC ⇔ CU, because then each CU is started separately or you have to activate the start on all 4 PCs at the same time?

No, one PC generates the start command and switches a relay. All linked CUs then get the start signal simultaneously (via a hardware connection).

The solution:

One of the 4 PCs sends all Start commands to the CUs via a hardware connection. In principle, this is similar to the control of the Dual Speed Controller (Start).

What do you need for this?

- 1) Control software, where you can control a relay externally (Cockpit-XP)
- 2) 2 or more interfaces to control the CU with.

Interface:



Via this PCB, each CU is provided to receive the signals to 'Start' and 'ESC', These in turn can be switched by a relay (USB-Box) or by a remote control unit.

Remote control:



Control unit to operate CU remotely.

Connection between Remote Control and Interface can be done with standard 'Network cables'

The Interface has 3 connectors, with which you can connect to the next interface. In principle, one remote control is then sufficient to control all connected interfaces (CUs) at the same time.

Once the start command is given (green button is pressed) then all connected CUs start the start procedure.

So how does it work?

Cockpit -XP controls a relay via the USB-Box, the interfaces receive this signal and activate CU's the start button.

All hardware components (see price list) can be purchased from us, the software from Cockpit-XP