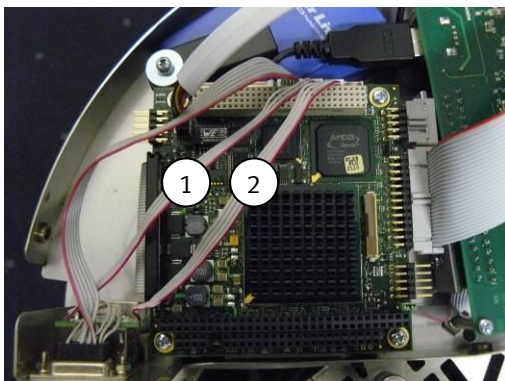
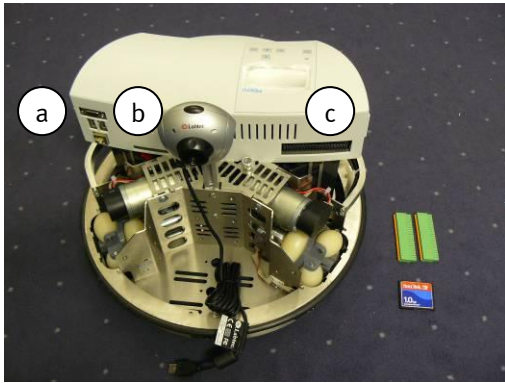


## Quick Guide – How to solve a “freezing camera” problem on Robotino®

A 140Ω ferrite (at 25Mhz) on the USB cables will prevent HF signal injections into the USB ports, which could cause the camera of Robotino to freeze upon high-speed movements of its motors.



- 1) Turn off Robotino
- 2) Remove
  - a) USB plugs (eg. USB-Cam),
  - b) Memory card (press small black button)
  - c) green connectors
- 3) Unload yourself from electrostatic charge (e.g. by touching a radiator or water-tap)
- 4) Unscrew the 4 screws of the cover using a 2.5mm hexagon screwdriver and open it carefully
- 5) Try not to touch any parts of the PC104/PCB (electrostatic charge will cause damage)
- 6) locate the two USB cables (marked 1,2)
- 7) Open the ferrite and carefully close the ferrite around the two USB-cables without hurting them. The ferrite should be placed as close as possible towards the PC104 connectors to prevent any HF signals to inject into the USB.
- 8) Close the cover,
- 9) Remount the
  - 4 screw
  - memory card
  - USB –Cam
  - two green connectors

Thank you for your cooperation in fixing this malfunction USB yourself.  
Our sincerest apologies for any inconveniences caused by the camera-freezing!

### Background information:

The low-power industrial PC104 “MOPSLcdLX 500Mhz” shipped with Robotino since 01/2008 has more sensitive AMD powered USB ports than the “MOPSLcdVE 300Mhz” shipped before 01/2008. Enduring testing has shown that this faulty behaviour can be fixed by the above procedure.