# Investigate oktagon/oktapussy extendability #2

Open **tehKaiN** opened this issue on Sep 3, 2018 · 1 comment

**Labels** enhancement help wanted question

**tehKaiN** commented on Sep 3, 2018 Member

Perhaps it's possible to leave some space on PCB for mounting programmable logic and/or ROM so that this expansion could work in less hackish way and support booting

**tehKaiN** added enhancement question help wanted labels on Sep 3, 2018

**tehKaiN** commented on Dec 5, 2018 • edited Member Author

Oktagon/oktapussy is troublesome 'cuz you need programmable stuff (PLD or ROM/flash) and it makes BOM considerably pricier.

some googling has given me an info that at addr `$DE1000` there's Gayle register, and you read it like:

```
UBYTE ubGayle = 0;
volatile UBYTE *p = (uint16_t*)0xDE1000;
*p = 0xFF; // Write anything
for(UBYTE i = 0; i < 8; ++i) {
    ubGayle = (ubGayle << 1) | (*p >> 7);
}
logWrite("Gayle: %02X\n", ubGayle);
```

and if you expose `D0` or `D1` value there, you'll trick kickstart into thinking that there's Gayle onboard, and not Gary. It will magically boot IDE for you, probably. KS 37.300+ is needed for that ofc but those should be quite popular nowadays. For purists there's floppy boot option. ;)

This could be done with one address decoder and single 8-bit shift register.

**Assignees**

No one assigned

**Labels**

enhancement help wanted question

**Projects**

None yet

**Milestone**

No milestone

**Development**

No branches or pull requests

**1 participant**