



Group / Semester Thesis:

Have a break, pay with Bitcoin

Sometimes getting a sugary snack is what you need to get going for that last hour of work, but what happens if all you find is a vending machine that won't take your 10 CHF bills? Even if you had your credit card with you the vending machine wouldn't accept it because the fees for the transaction would be prohibitively high. So what to do?

Bitcoin might be the right solution for this scenario. Bitcoin is a rapidly growing digital currency invented in 2009 that can already be used for anything from buying alpaca socks to paying your hotel room.¹ Bitcoins can be transferred from one user to another in a matter of seconds. Think of it as digital cash inside your phone. As the network that relays and verifies transactions is run by volunteers the fees for the transactions are minimal. You can pay by simply scanning a QR-Code or holding your phone next to the machine and the owner of the machine doesn't have to worry about it being vandalised because it does not contain any cash that can be stolen.

But so far vending machines do not accept Bitcoins. This is your chance of changing that! The goal of this thesis is to modify a vending machine to accept Bitcoins as an additional payment method and enable us to get the snacks we crave for.



Requirements: Good programming skills are required. Some creativity and experience in Android or Arduino programming are advantageous. The student(s) should be able to work independently on this topic.

Interested? Please contact us for more details!

Contacts

- Christian Decker: cdecker@tik.ee.ethz.ch, ETZ G64.2
- Samuel Welten: swelten@tik.ee.ethz.ch, ETZ G61.4

¹... and much more, see <https://en.bitcoin.it/wiki/Trade>