Brain-Computer Interface

Project ideas for the Data Mining seminar 2013F

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We have the **device**

It reads out your **brain signals**

We do **stuff** with it
1. VEP Based Control Interface

Wait for a black square to appear here.
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Wait for a black square to appear here

300ms after the black square appeared your brain produced Visual Evoked Response (VEP) We can use it!
1. VEP Based Control Interface

- Study **literature** on VEP / P300
- Analyze EEG **signal** from device
- Take a **robot** (we have one)
- Make it **go** forward, back, turn right & left obeying **signals from your brain**
They* try to use **Brain-Computer Interface** to move something (cursor, robot, whatever)

But **fuzzy classifier** seems like a lot more **natural** choice for this kind of task

So they create a **classifier** with 4 actions

Let’s try it out?

*Researchers
2. Fuzzy classifier for BCI

• Study literature on fuzzy classifiers

• Analyze EEG signal from the device

• Make cursor (or a robot) move where you want it to using power of your thought* only

*Probably will not work** very well 😊

**But if it will, then it’s a breakthrough!
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Did not understand how all this stuff could work but sounds cool?