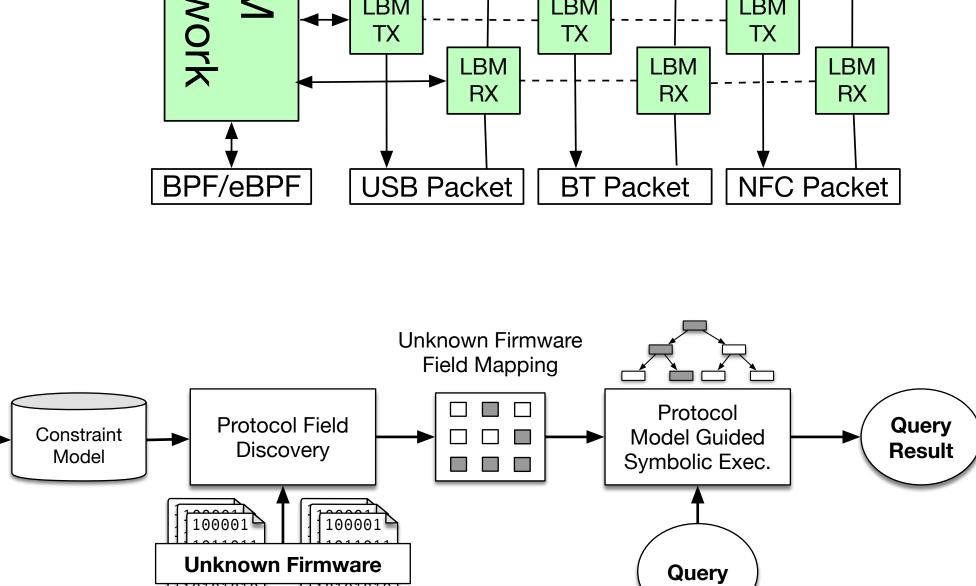- **Hypothesis:** Understanding the communication protocols used by microcontroller firmware can ensure their safety and security and help protect computers from malicious devices.

- **Major results:**

  - **LBM:** BPF-based protection framework for Linux defends against syntax and semantic attacks from USB, Bluetooth, NFC devices (Oakland 2019)

  - **ProXRay:** Protocol model learning based on firmware analysis for automatic recognition of device functionality (IEEE Trans. Soft. Eng. 2020)