



Lehrstuhl für Sicherheit in der Informatik  
Prof. Dr. Claudia Eckert



*Announcement: Bachelor thesis in cooperation with Fraunhofer AISEC, Garching*

# Security of Video Game Consoles

## Motivation and Task Description

Current-gen video gaming consoles are shipped with several protection measures included. For security research, this offers the possibility to study state-of-the-art embedded security with relevant consumer electronics devices at hand.

The focus of the work is the analysis of the security of **one** of the following consoles:

- Nintendo Switch
- Microsoft Xbox One
- Sony PlayStation 4

For this, a systematic risk analysis based on the MoRA<sup>1</sup> framework is to be conducted. This requires research and documentation of known attack vectors as well as their evaluation. For the practical part, the security measures of the console can be tested against software and hardware exploitation.

## Requirements

- Knowledge on hardware/software architecture, programming, and IT security
- Experience in working with embedded hardware
- Knowledge/experience on reverse engineering and penetration testing is beneficial

## Contact

Please apply to all contacts listed below. Make sure to include your CV and a current grade report in your email.

**Alexander Giehl, Norbert Wiedermann**

Telefon: +49 89 322-9986- $\{189, 141\}$

E-Mail:  $\{alexander.giehl, norbert.wiedermann\}@aisec.fraunhofer.de$

Fraunhofer Research Institution for Applied and Integrated Security (AISEC)

Department Product Protection & Industrial Security

Parking 4, 85748 Garching (near Munich), Germany

<https://www.aisec.fraunhofer.de>

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<sup>1</sup>Eichler, J., and Angermeier, D.: *Modular risk assessment for the development of secure automotive systems.*