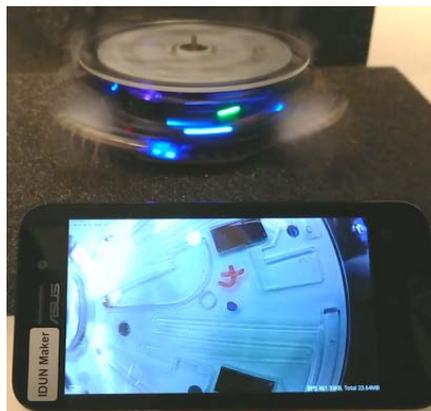


## Master project

# Powered Lab-on-a-Disc Development

The lab-on-a-disc (LoD) concept utilizes centrifugal force for lab processes such as sedimentation, valving, metering, mixing etc. However, the LoD needs complex driving, imaging and sensing setup which builds up a high engineering threshold for newcomers in the field.

We are developing an all-in-one powered lab-on-a-disc platform that integrates wireless inductive power, wireless input/output communications and a closed loop spinning mechanism into a palm-sized portable and easy to build device.



You are going to learn 3D printing, Arduino programming and electronics integration during the platform modification, sensing modules improvements and system evaluation.

### Project topics:

- Potentiostat module improvement and electrochemical evaluation
- Optical imaging module improvement and cell imaging evaluation
- New module developments

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### About IDUN

*IDUN is a center of excellence funded by the Danish National Research Foundation and the Villum Foundation. The center is divided into two parts: IDUN Drug and IDUN Sensor, focusing on drug delivery and nanomechanical sensors, respectively.*