

## VE482— Introduction to Operating Systems

*OS hobby 1*

Manuel — UM-JI (Fall 2017)

- No deadline
- Optional but open to all
- Rewarded by a bonus on the final grade

**The goal of this OS hobby is to build a smartphone.**

### Hardware requirements:

- A Raspberry pi 3
- A GSM module for Raspberry pi 3 (check the Sailpi website for references)
- A 3 inches touchscreen for Raspberry pi 3 (warning: some cheap monitors, around 50-70 RMB have a refreshing rate of 1 or 2 frames per-second, this is too low so be careful when purchasing it)
- Some kind of microphone and speakers (optional as it should work with earphones)

**Software requirement:** the smartphone must run Sailfish OS 2.0.2.51

**Goal:** call us using your home-made smartphone

### Resources:

- [Sailpi website](#)
- [Sailfish OS website](#)
- [Raspberry pi documentation](#)

### Reward:

- Single: 5 extra marks on the final course grade
- Team: 10 extra marks on the final course grade to be shared among the team members
- Smartphone partially working will receive a partial reward

**Important note:** if you decide to participate in this OS hobby, please give us feedbacks on the advancement and difficulties you are facing.

### Recommended workflow:

1. Read simple documentation on Jolla and Sailfish OS (e.g. wikipedia pages)
2. Understand how the Mer project relates to Sailfish OS
3. Instal Sailfish OS SDK and check out how things are working
4. Install Mer core and get it working on the Raspberry pi 3
5. Complete Sailfish OS installation
6. Adjust and fix anything that is causing problem

### Useful links to find help and documentation:

- [Sailfish OS source code](#) (not necessarily needed if proper repositories are set)
- [Mer project website](#) (everything about Mer, including much documentation and tutorials)
- [User community support](#) (mainly targets user questions but also contains useful information for developers)