***SATNOGS-GDN Group Project***  
Weekly report – 2019-10-24

**Ewelina**:

1. research on Raspberry Pi, taking into account the differences between models, power methods, communication methods and compliance with our requirement;
2. comparison of various RPi models, including CPU, RAM, price, available ports/interfaces and so on,;
3. analysis of hardware requirements and computing power demand;
4. a proposal for the practical use of our project: (1) automatically generated reports containing received images or (2) website that shows the received images in real time;
5. preparation of the schematic diagram of our system,;

**Sławek:**

1. Leading Gqrx software research, experiments with different configurations;
2. Leading experiments with gpredict (software for predicting satellite flyovers);
3. Solving software problems with pulseaudio;
4. Strong participation in project decisions (antenna selection discussions, hardware platform selection, LNA research).

**Tomek**:

1. Acquisition process for SDR hardware;
2. Antenna selection process;
3. Acquisition process for WiMo TA-1 antenna;
4. Physical setup (RPi + SDK, antenna mounted on a tripod, Etherner, power cabling, power supply);
5. Initial Raspbian installation and configuration;
6. Solved problem with RPi instability (caused by insufficiently powerful power supply);
7. Network setup: new VLAN, DHCP, firewall, port forwarding;
8. Solved software issue with OpenSSL configuration (an apparent bug in latest Raspbian).

Joint effort:

1. Configuration of V-dipole training antenna in New ETI building, its tests involving attempts to receive data from several satellites using GNU radio.