# Detailed Project Class Plan: Introduction to programming and robotics with Microbit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Session** | **Duration** | | **Content and Methods** | **Teaching Materials** |
| 1 | 1h  45 min. | 15 min | **Content**: Introduction to the project: aims, support available, agenda for upcoming weeks.  **Methods**: presentation | **Teaching materials**:   * Two sets of slides:   + Introduction to project   + Introduction to Python * Handbook * Website (GitHub pages (address TBD)) |
| 30 min | **Content**: Introduction to programming with Python  **Methods**: presentation, real time demo. |
| 60 min | **Content**: Hand on experience with “micro:bits”  **Methods**: Peer-teaching, teamwork |
| 2 | 3h | 30 min | **Content**: Hand on experience with “micro:bits”  **Methods**: Peer-teaching, teamwork | **Teaching materials**:   * Slides: Introduction to Robotics * Handbook * Website (GitHub pages (address TBD)) |
| 30 min | **Content**: Introduction to Robotics and “Bit:Bot”  **Methods**: presentation, real time demo |
| 180 min | **Content**: Hands on experience with “Bit:Bot”  **Methods**: Peer-teaching, teamwork |
| 3 | 1h | 15 min | **Content**: Introduction to “Bit:Bot” programming challenge  **Methods**: presentation, question/answer session. | **Teaching materials**:   * Slides: “Bit:Bot” challenge * Handbook * Website (GitHub pages (address TBD)) |
| 45 min | **Content**: Idea brainstorming session  **Methods**: creation of mind maps, idea proposals and discussion with tutors. |
| 4 | 3h | 60 min | **Content**: Work on “Bit:Bot” challenge  **Methods**: Peer-teaching, teamwork | **Teaching materials**:   * Handbook * Website (GitHub pages (address TBD)) |
| 30 min | **Content**: Overview of work done by each team  **Methods**: small oral presentations, tips from tutors |
| 60 min | **Content**: Work on “Bit:Bot” challenge  **Methods**: Peer-teaching, teamwork |
| 30 min | **Content**: Overview what was done during the session  **Methods**: discussion, tips from tutors |
| 5 | 3h | 180 min | **Content**: Work on “Bit:Bot” challenge  **Methods**: Peer-teaching, teamwork | **Teaching materials**:   * Slides: Internal showcase presentation * Handbook * Website (GitHub pages (address TBD)) |
| 30 min | **Content**: Final overview  **Methods**: discussion |
| 30 min | **Content**: Tips for final presentation  **Methods**: Presentation |
| 6 | 1h | 30 min | **Content**: Internal showcase  **Methods**: Oral presentations, question/answer session | **Teaching materials**:   * Handbook * Website (GitHub pages (address TBD)) |
| 30 min | **Content**: reflection  **Methods**: Discussion |