

# Project Approval

3 Craftsmen

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## 1 Team

Team Number: 307

Team Name: 3 Craftsmen

### 1.1 Members

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## 2 Original Project

A Python3 game Minecraft from <https://github.com/fogleman/Minecraft>

### 2.1 License

MIT License allows public redevelopment.

### 2.2 Hardware Requirements

Must run on a computer with Python3.

## 3 Purpose and Scope

### 3.1 Purpose

The original software is designed and developed as a game to inspire and motivate the others to learn programming.

## 3.2 Scopes

Add hp(hit point) on character.

Add day and night change.

Add weathers change(may cange characters mobility).

Add new material blocks.

Eg: water - can flow, character can swim in.

magma - underground, can deal damage to character.

wood - can be burned by magma.

leaf - can form a tree with wood, also can be burned.

Add animals, may have interaction with character.

## 4 Programming Language and Domain Knowledge

It's a Python3 program with understandable knowledge that is fesible and can be handled in one term.

Totalline: approx. 900

## 5 Compile and Test

The source code is compilable and we played to test.

Test cases:

1. Player movement with W/A/S/D keys corresponfing to 4 directions.
2. Player jump with Space key.
3. Player's vision direction changes with mouse movement.
4. Dependency and conflicts of different keys, like changing movement direction while jumping.
5. Create blocks with right mouse click.
6. Select type of blocks to ccreate with top digit keys (1, 2, 3).
7. Destroy blocks with left mouse click.
8. Changing between flying mode and walking mode with TAB key.
9. Lifting up in flying mode by Space key.

10. Releasing mouse with ESC key.
11. Outlining on the focused block(in the center of vision).