VG 101 Project Group 40 Proposal

1. Group 40
2. Group member:

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4. Dancing Robot
5. MATLAB
6. Summary

1. An on-screen robot that can dance. Its movement can be either automatically generated or customized.
2. Motivation：

1. Make a funny game that helps people relax
2. Help people design dance
3. Tentative Design of your project (several paragraphs and some figures if you would like)

1. Features of your software and its corresponding description
    1. 2D or 3D dancing robot
        2. Automatic dancing: The robot can dance with random movements
            3. Customizable dancing: User can design some movements for the robot
                4. Customizable skin: User can change colour or shape of the robot. Imported images can also be attached to the robot
                    5. Multiple robots dancing together
2. Data dictionary or datagram demonstrating the structure or the interaction of different building blocks
    1. 2D and 3D robots will have similar model, but the control of 3D robot is more complicated
        2. Automatic dancing and customizable dancing will share a control function, but the input of the former is randomized
3. Expected outcome

1. Bottom-line: List of features that you will accomplish before the deadline no matter what
2. 2D dancing robot with
    1. Customizable skin
        2. Customizable movement
            3. Random movement

1. Expected: List of features that you think you can accomplish before the deadline
    1. Adjustable pace of movements
        2. 3D dancing robot with all features above

3. Scene effect (e.g. flame)

4. Multiple robots dancing together

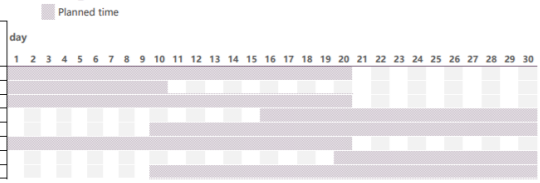
2. Potential: List of features that you hope to accomplish before the deadline

    1. Automatically dancing with given music

3. Timetable:

VG101 Group40

Tasks	Scheduled start time	Planned time	Actual start time	Completion
2D dancing robot	1	20	1	25%
Customizable skin	1	10	1	10%
GUI	1	20	1	25%
Scene effect	16	25	0	0%
Customizable movement	10	25	0	0%
Movement Design	1	20	1	25%
3D dancing robot	20	30	0	0%
Random movement	10	25	0	0%



4. Extra preparations: To accomplish your goal, what extra topics or knowledge you plan to learn

    1. Figure in 3D
    2. GUI
    3. Image processing and display
    4. Audio processing (potential)

5. Task assignment: Who will accomplish which part, we expect every group member has the equal workload.

    1. Su Zhenxuan: model constructing
    2. Tang Yuxuan: Image
    3. Wei Xiwen: GUI