



Galaxy G

윤현철 정호용 박천경 홍정민

Contents



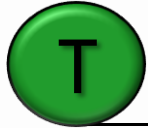
otive



rchitecture



cenario



echnical Implementation



emo



ember



& A



Motive



Motive



Motive

Rain/Snow
Far Far Away
Money!!

A photograph of a golf course under a stormy sky. A bright lightning bolt strikes a distant hill. The foreground shows a green golf course with a sand trap. The text "Rain/Snow Far Far Away Money!!" is overlaid on the image.

Motive



Motive

~~Rain/Snow~~
~~Far Far Away~~
Money!!



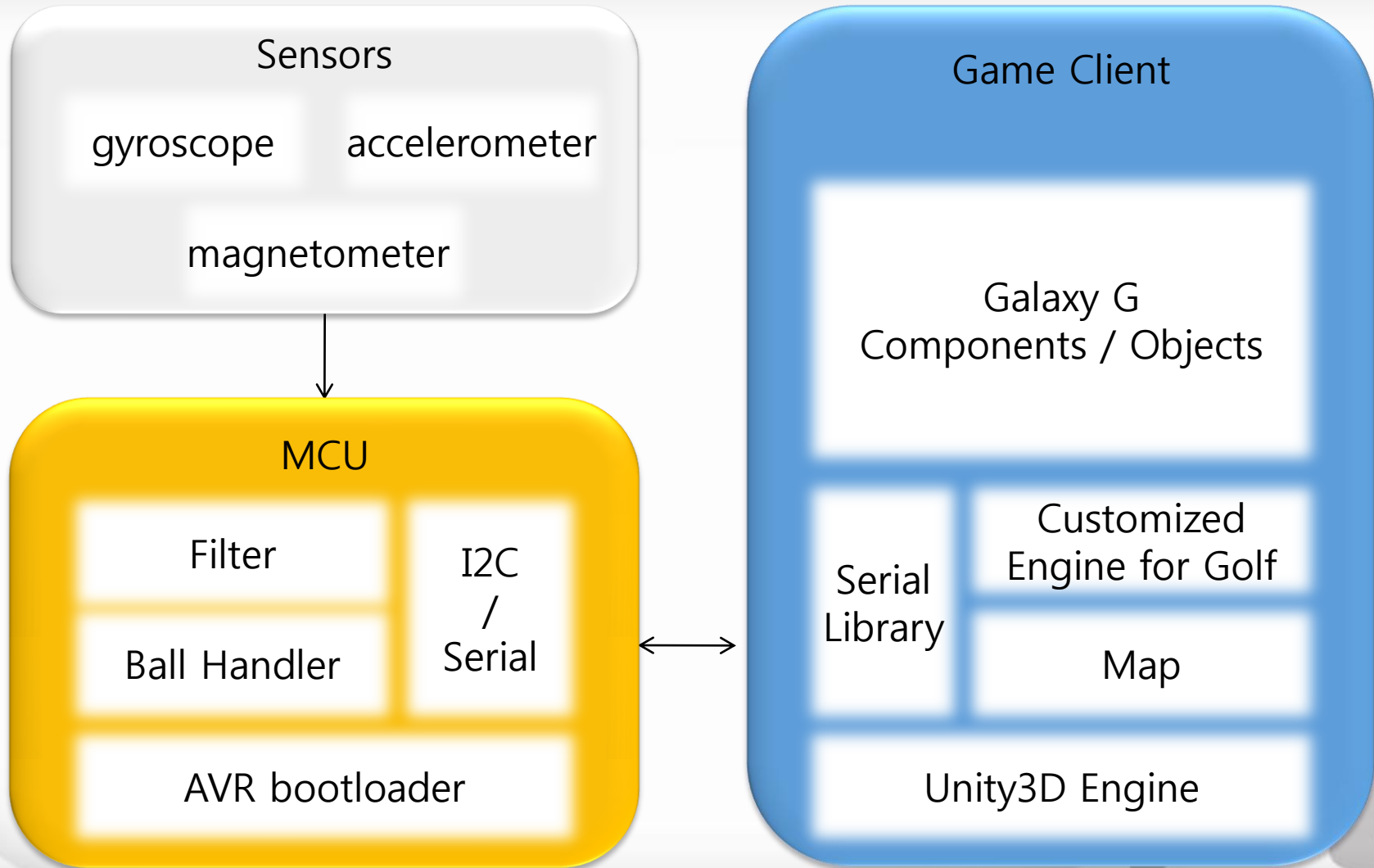
Motive



Architecture



Architecture



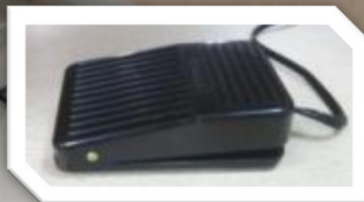
Scenario



Scenario - SmartBall



**MCU
(Ball Handler)**



Foot Switch

**Smart
Ball**

Scenario – MainMenu



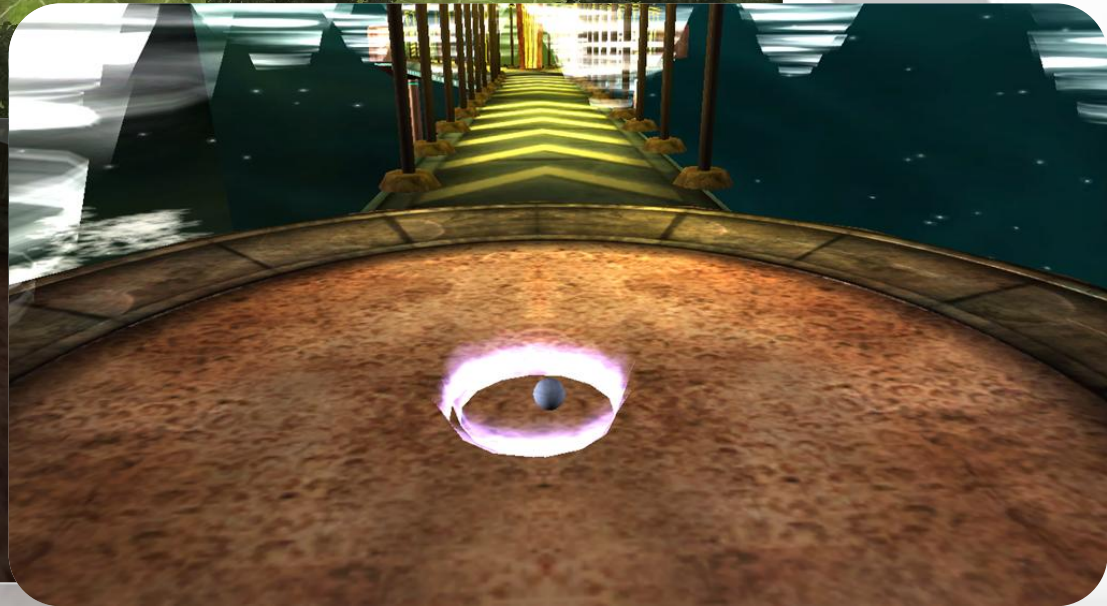
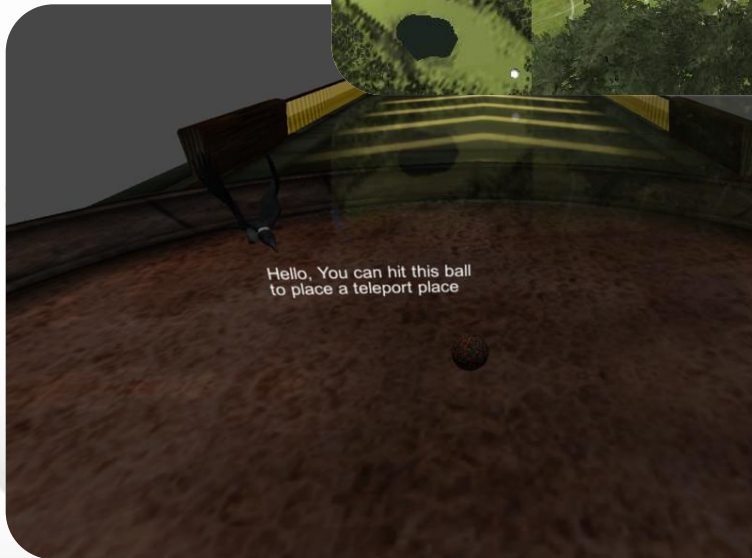
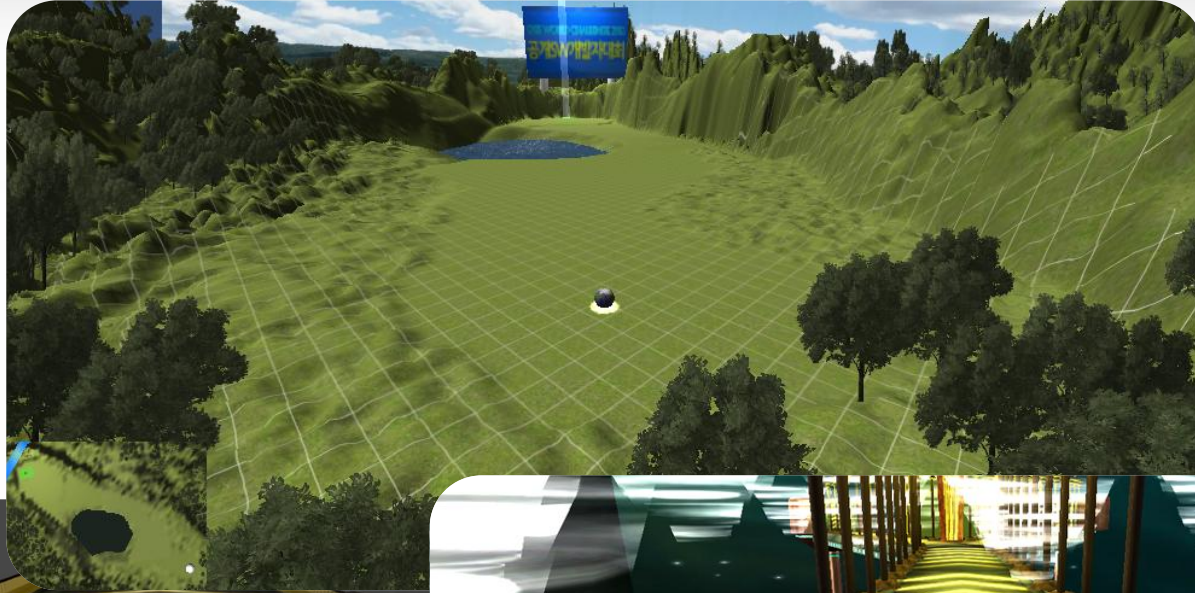
Scenario – Map Selection



Scenario – Single Play



Scenario – Play



Scenario – Putting

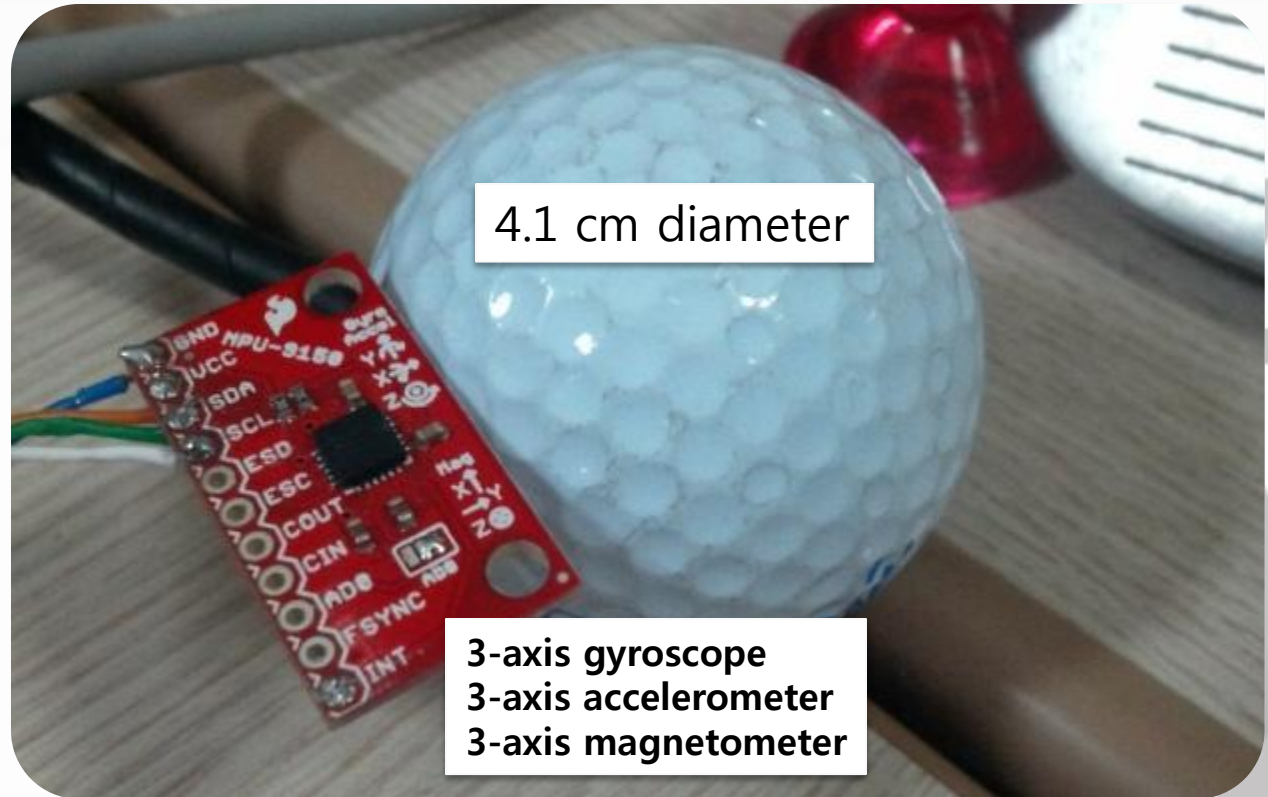
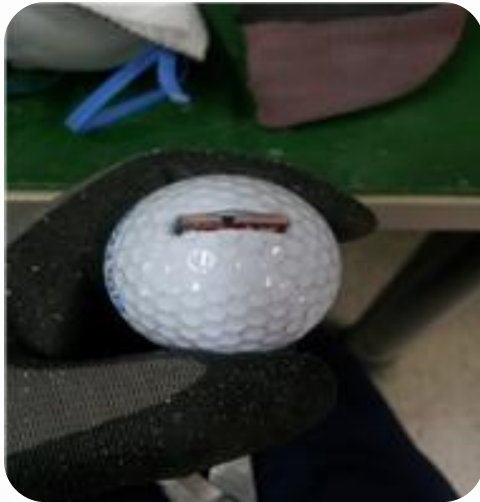


Technical Implementation



TI - SmartBall

VCC / GND
I2C(SDA/SCL)
Wire



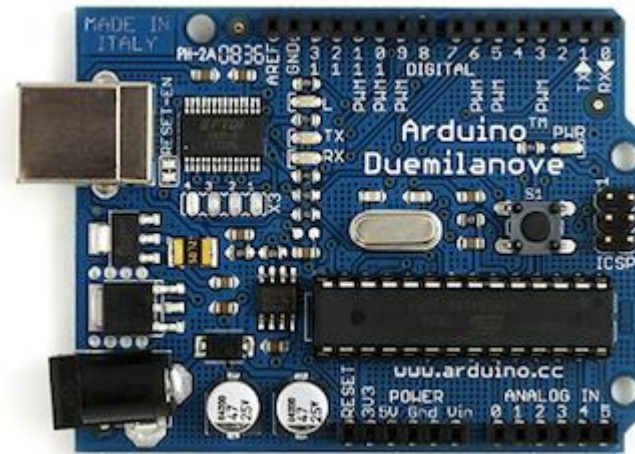
4.1 cm diameter

3-axis gyroscope
3-axis accelerometer
3-axis magnetometer

9DOF(Degrees of Freedom)
MPU-9150 accelerometer / gyro / magnetometer
3 cm x 1.5cm

TI – MCU

ATMEGA328
(C++/Arduino)



I2C
Wired Cable



SmartBall
MPU-9150

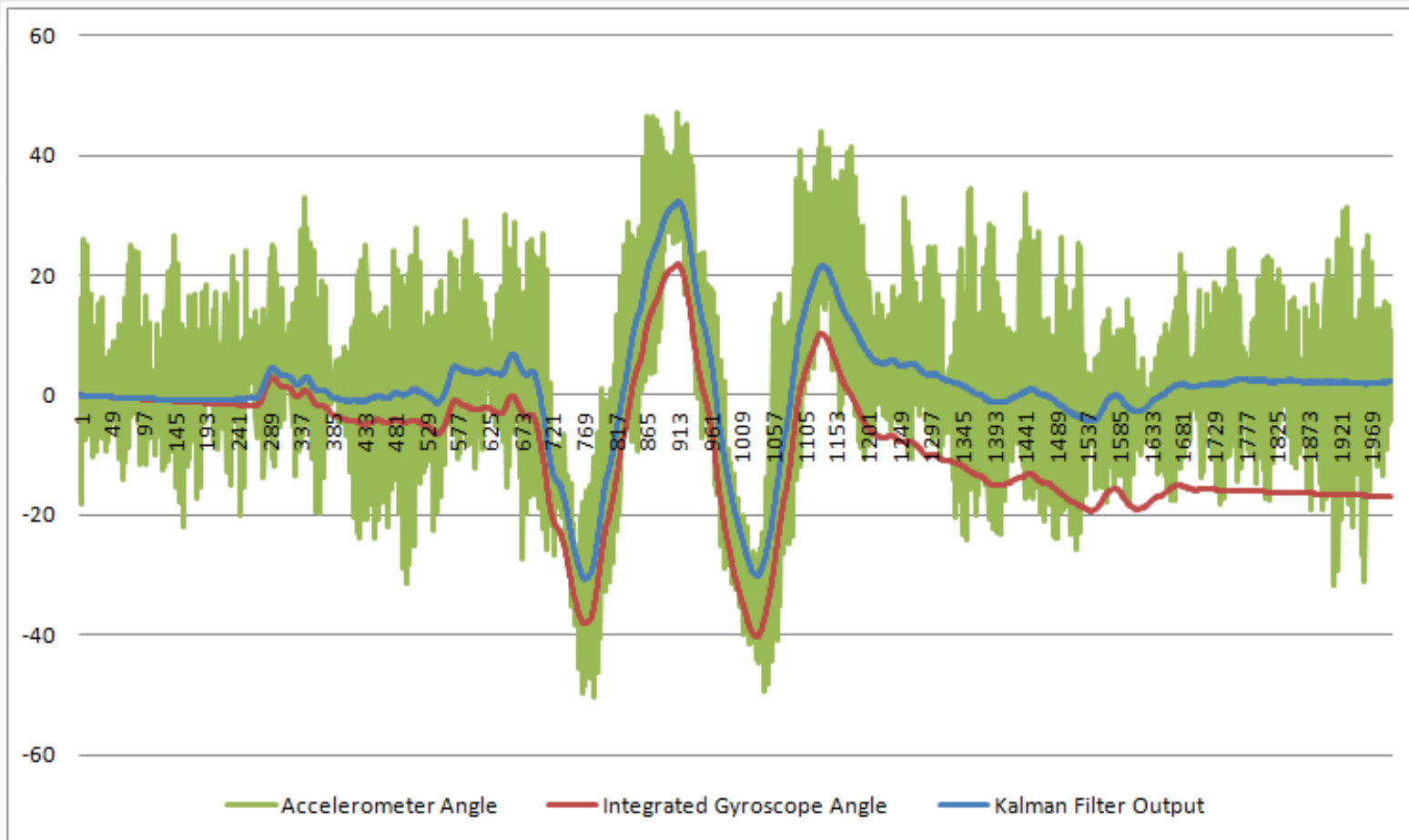
Gyro / Accelerometer
/ Magnetometer

Serial(USB-COM)
(X,Y,Z and Force)



Game Client / Serial Library

TI – Filter in MCU

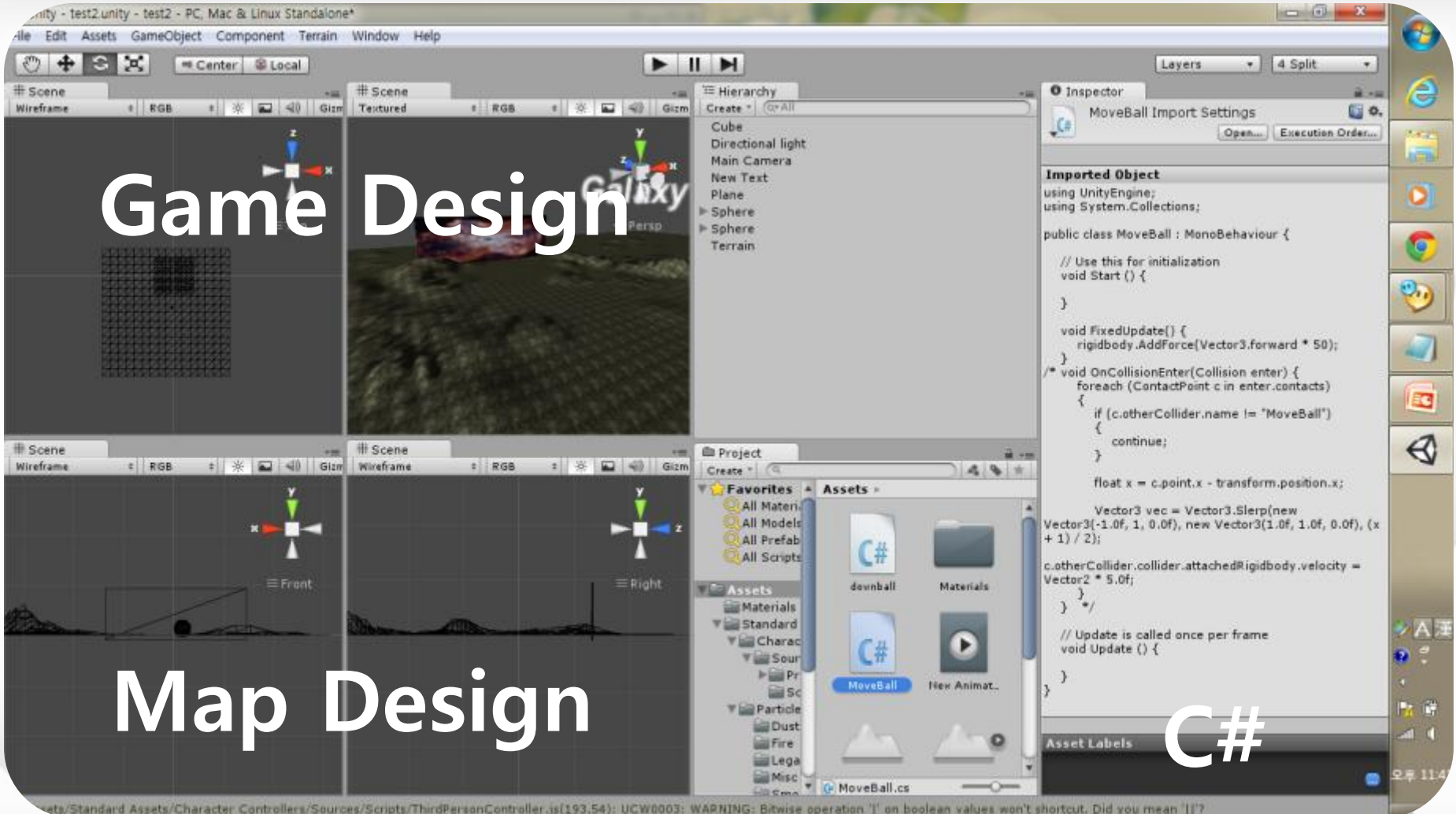


1. Accelerometer / Magnetometer Filtering Using Kalman Filter
2. Accelerometer Filtering when Hitting Detected. Using Kalman Filter

TI – Game(Unity3D)

Game Design

Map Design



C#

TI – ViewPoint

- **Brand-New Way to Change the Camera Viewpoint**



Demo



Member



Member



Yoon Hyun-Chul(PL)

- Software Engineer
- Unity3D / Engine / Contents



Jung Ho-Yong

- Software Engineer
- SmartBall / Filter



Hong Jeong-Min

- Software Engineer
- Unity3D & MCU Communication



Park Chun-Kyeong

- Hardware Engineer
- SmartBall / MCU
- Homeground



Q/A

