



# Arm Control

Our locomotion technique

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# Recap



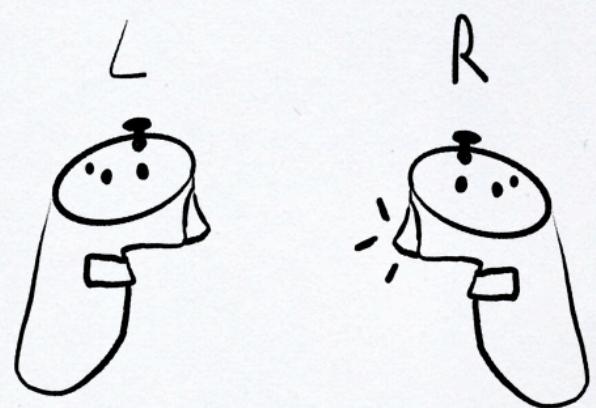
Turn right



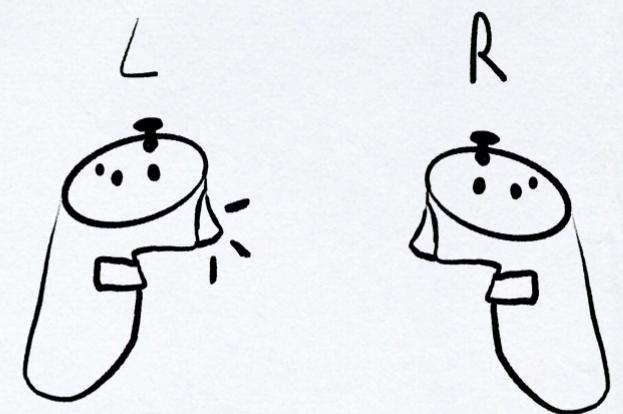
Turn left



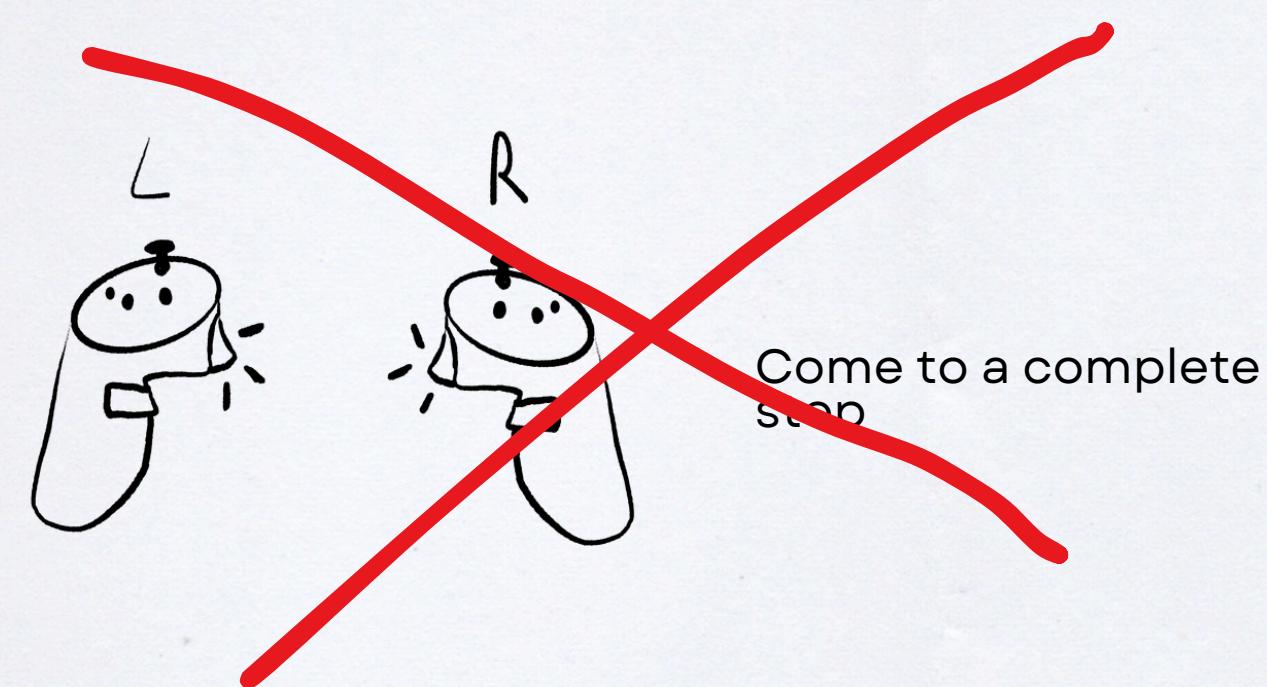
Boost forward, no turn



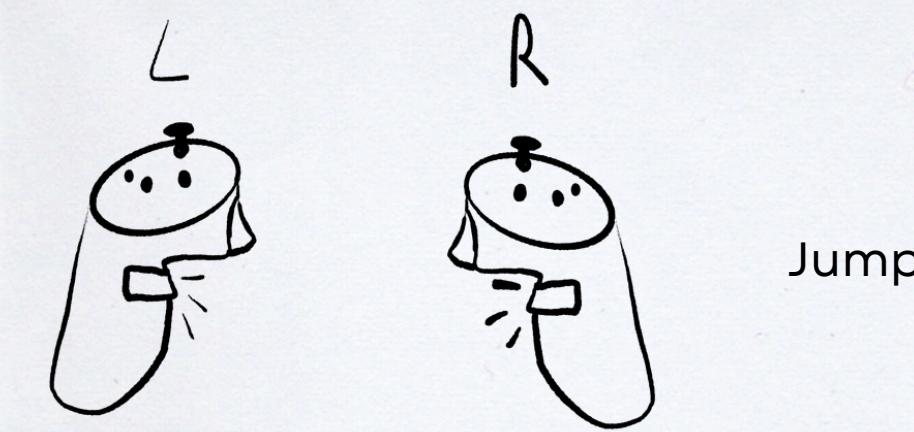
Forward



Backward



Come to a complete stop

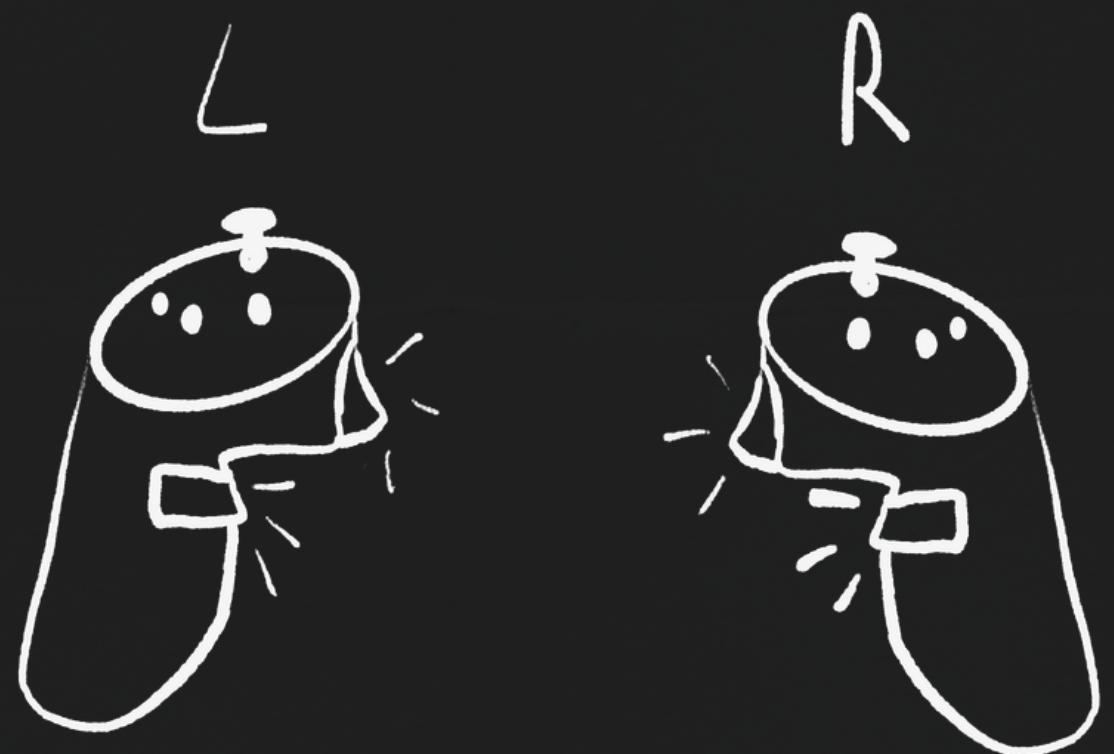


Jump

# HOW WE DID IT ?

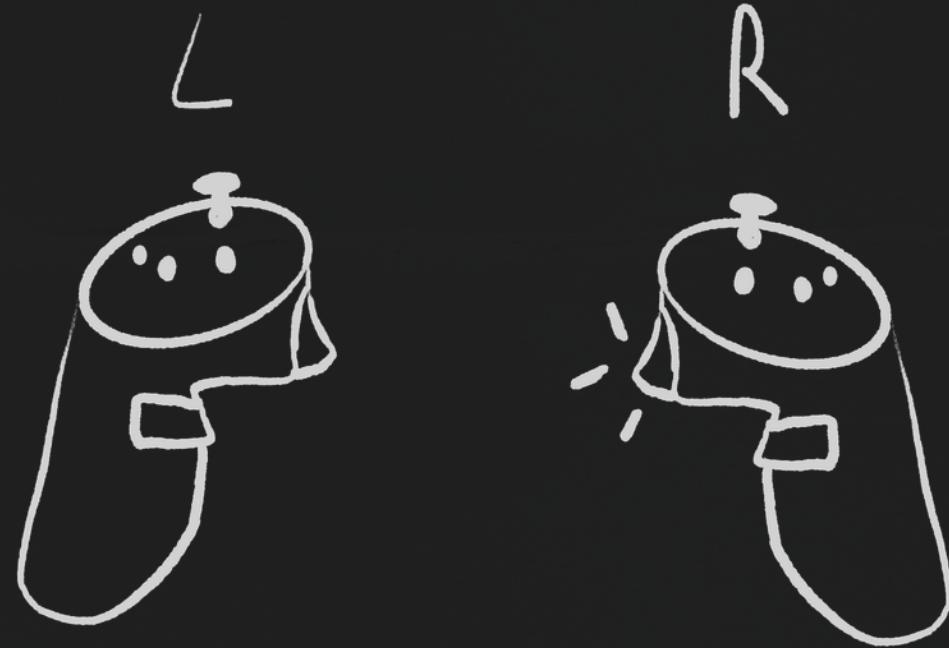


# INITIALIZE POSITION

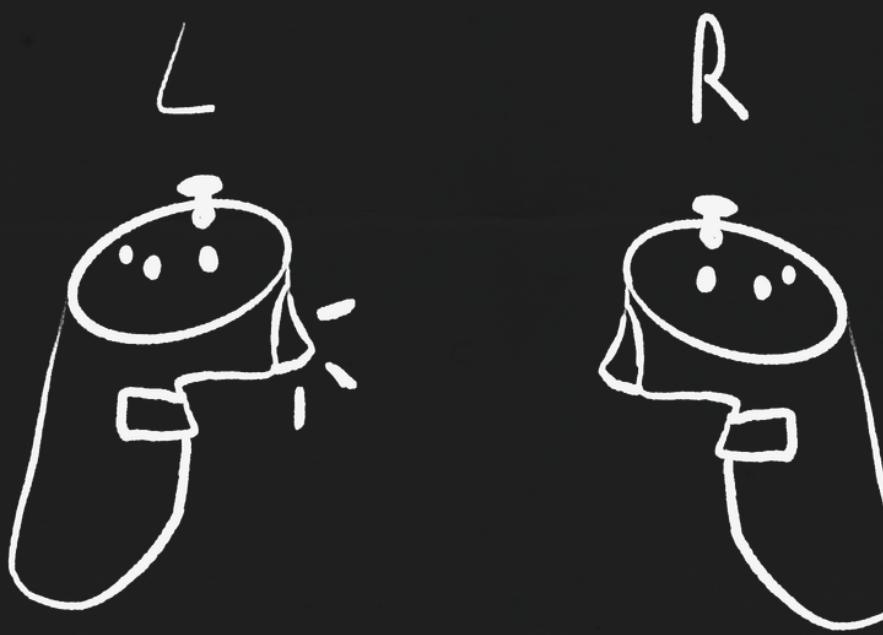


```
void initOrientation()
{
    orientation = hmd.transform.forward.normalized;
    leftYStart = OVRInput.GetLocalControllerPosition(leftController).y;
    rightYStart = OVRInput.GetLocalControllerPosition(rightController).y;
}
```

# Moving the player - FORWARD/BACKWARD



forward



backward

# Moving the player - TURN



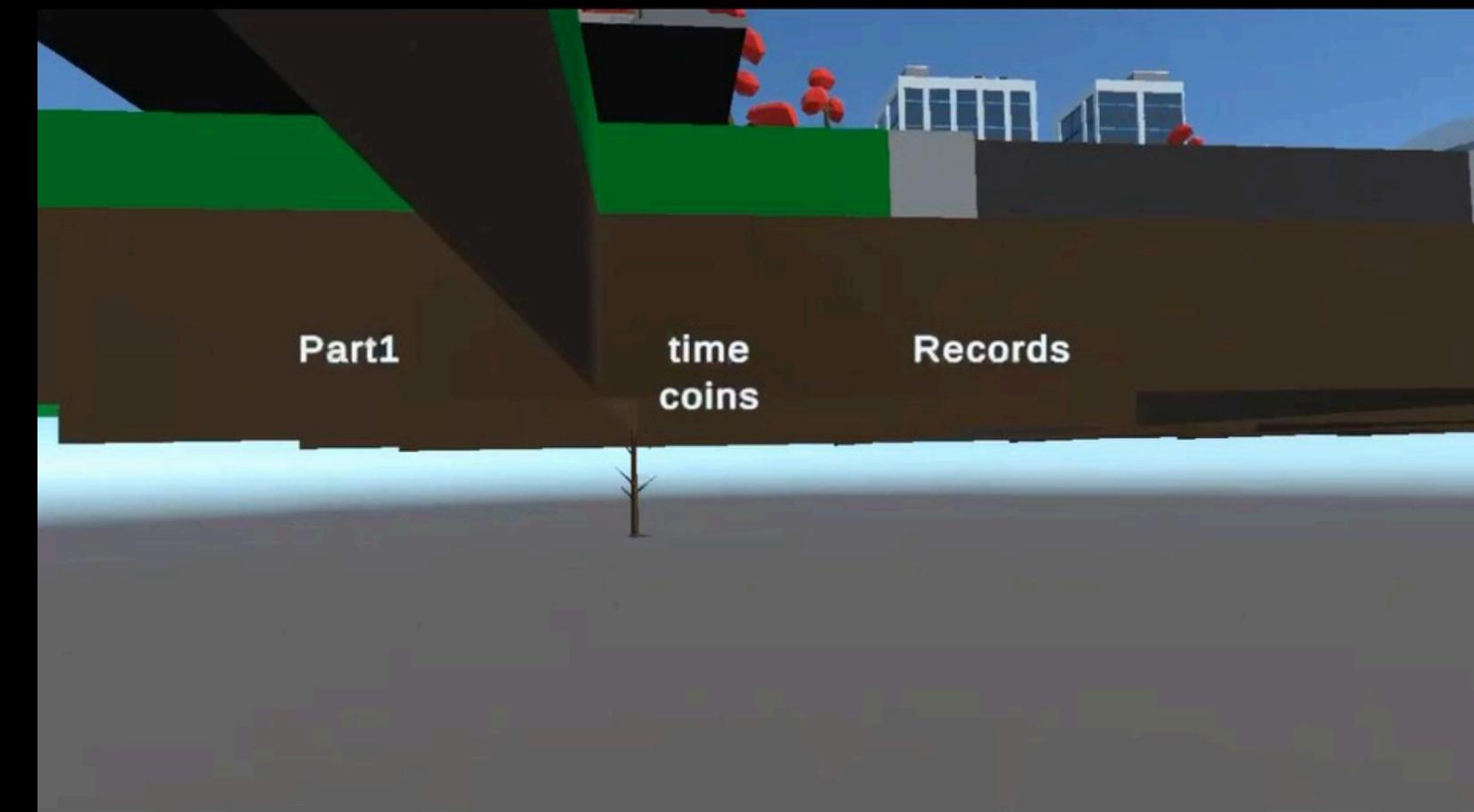
# Moving the player - BOOST



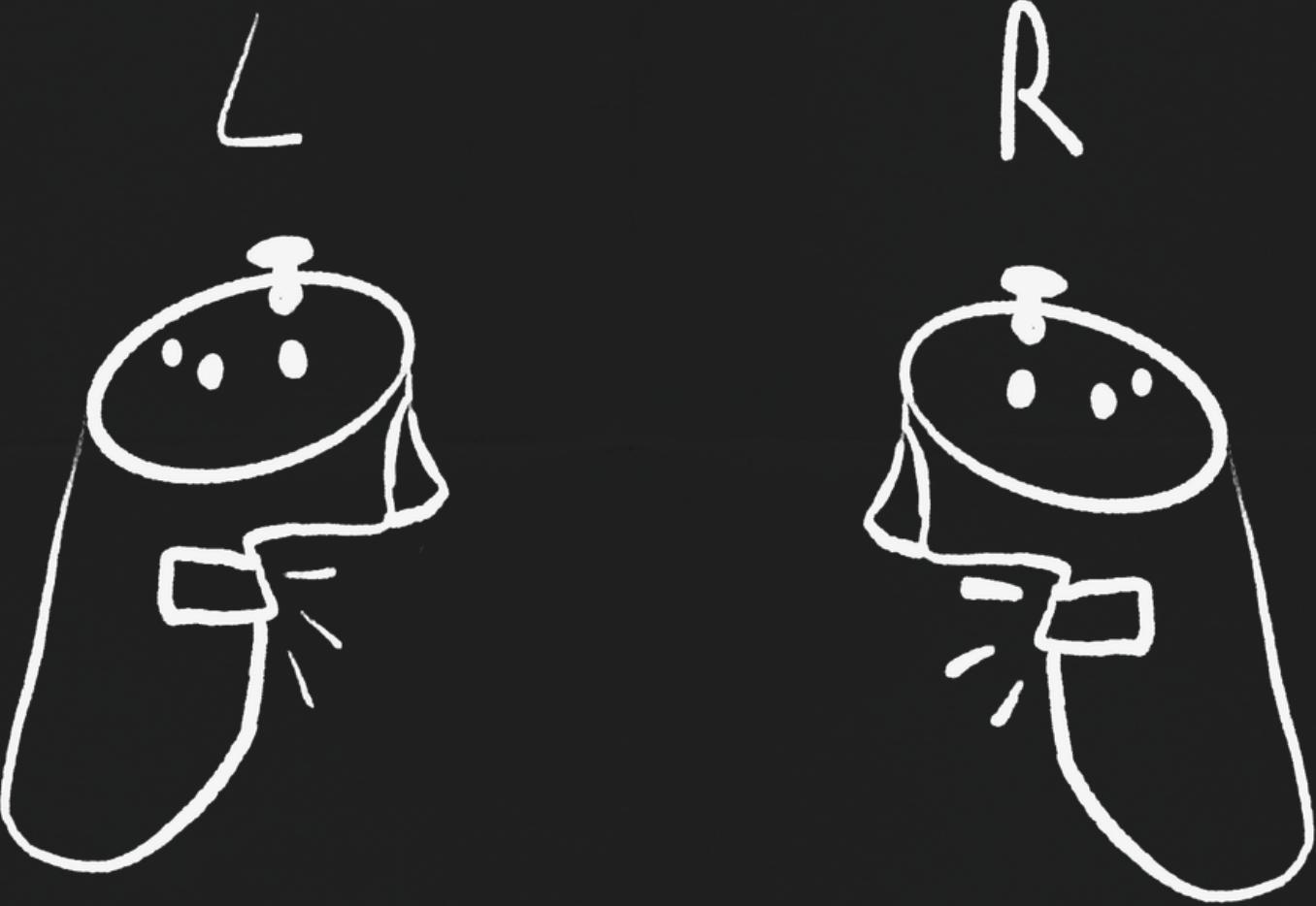
# MAIN CHALLENGE

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## THE HILL



# Moving the player - JUMP



```
// jump
//if (leftPrimaryTriggerValue > 0.95f && rightPrimaryTriggerValue > 0.95f && !isJumping)
//{
//    isJumping = true;
//}
//else if (isJumping)
//{
//    float currentHeight = transform.position.y;
//    offset.y = 0f;

//    if (currentHeight < jumpFinalHeight)
//    {
//        transform.position += Vector3.up * jumpSpeed;
//    }
//    else
//    {
//        isJumping = false;
//    }
//}
if (leftPrimaryTriggerValue > 0.95f && rightPrimaryTriggerValue > 0.95f) //&& !isJumping
{
    //isJumping = true;
    //rb.linearVelocity = new Vector3(rb.linearVelocity.x, 0f, rb.linearVelocity.z);
    rb.AddForce(Vector3.up * 1.5f, ForceMode.Impulse);
}
```



# User Testing:

## Pros:

- Much less motion sickness than expected
- Arms do not get tired with faster changes in rotation
- Easy to perform movement after an adjustment period
- Highly entertaining

## Cons:

- Faster the speed = less control
- Bugs with terrain
- Jumping is complicated to control
- Expected different go and stop

# Next Improvements:

- **fix bugs**
- **perfect variables to make run more natural**
- **add user interface to describe set up / tutorial for clarity**
- **possibly change stop and go**

**Thank you!  
Questions?**