```rust
// echo_decaps.rs

use sha3::{Digest, Sha3_256};
use crate::echo_struct::{Symbol, State, SymbolPath, EchoGraph};

pub fn echo_decaps(graph: &EchoGraph, sk: &SymbolPath, r: &SymbolPath) -> [u8; 32] {
    let v_priv = graph.resolve(0, sk);
    let v_dec = graph.resolve(v_priv, r);


    let v_dec_bytes = [(v_dec & 0xFF) as u8, (v_dec >> 8) as u8];


    let mut hasher = Sha3_256::new();
    hasher.update(&v_dec_bytes);
    hasher.update(&r.symbols);
    hasher.finalize().into()
}
```