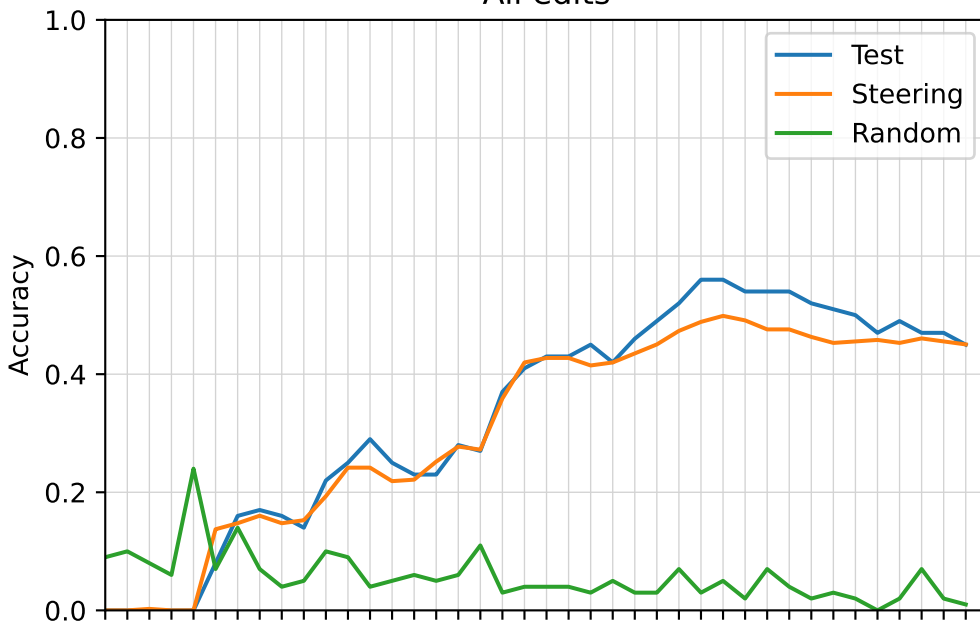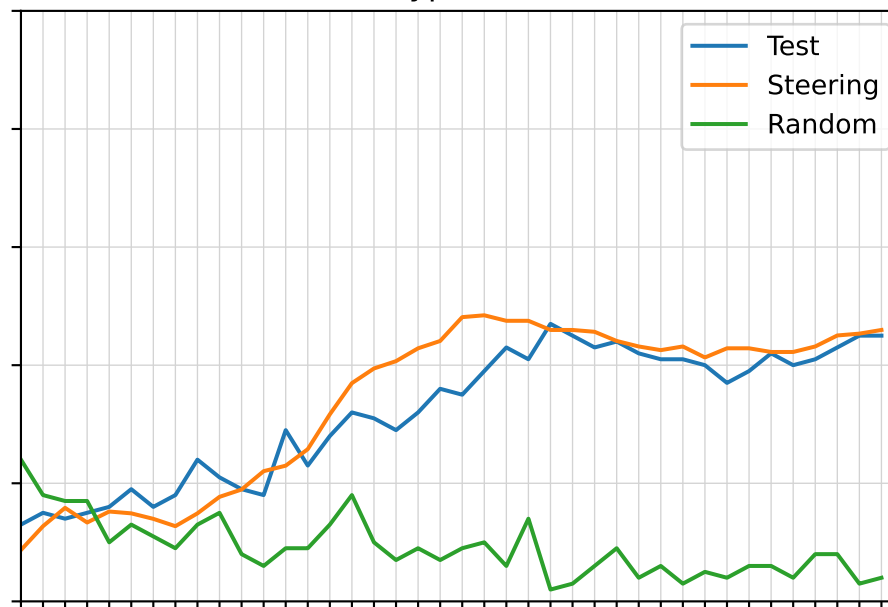3 patched layer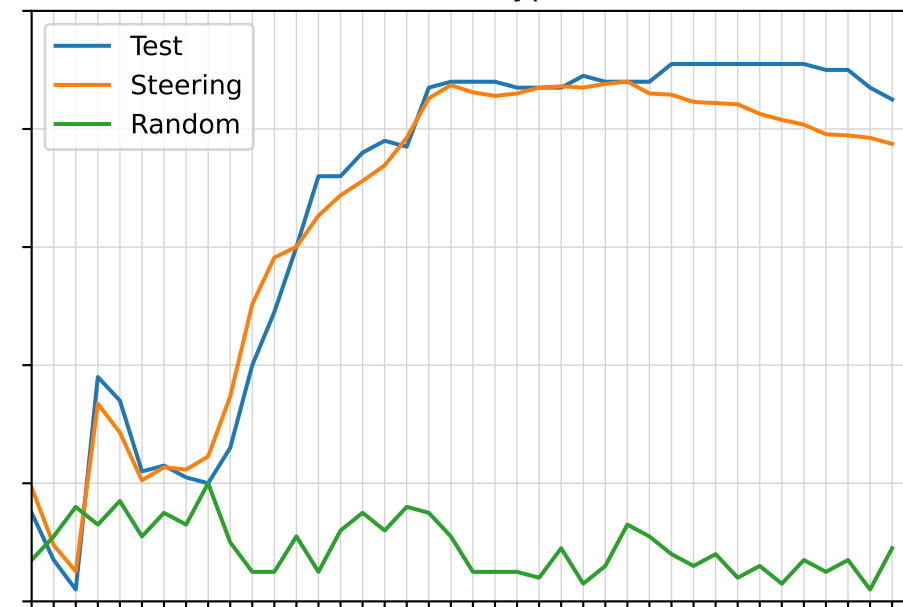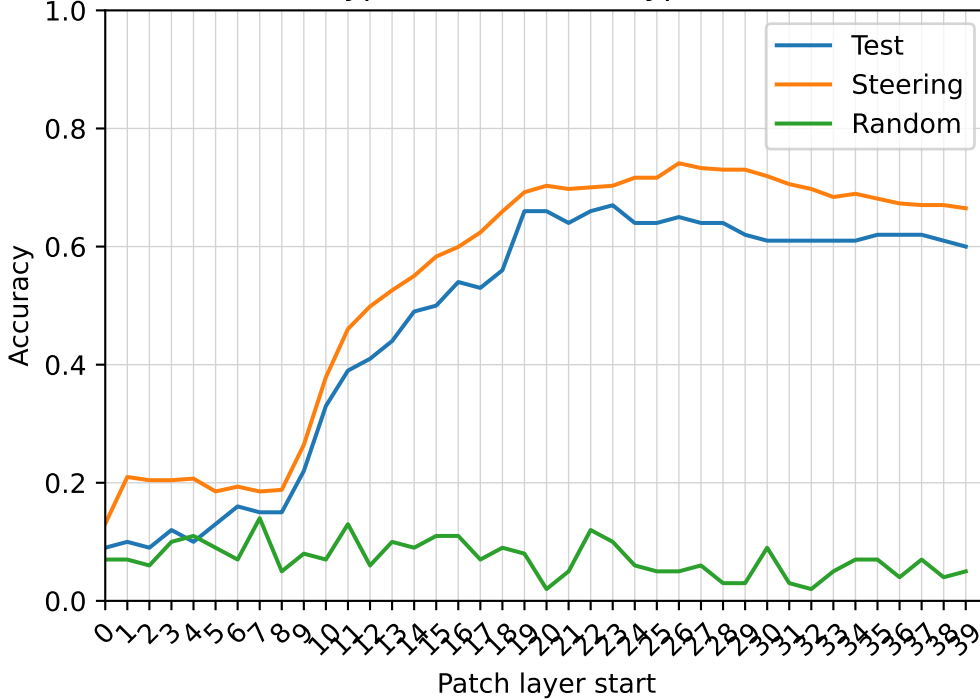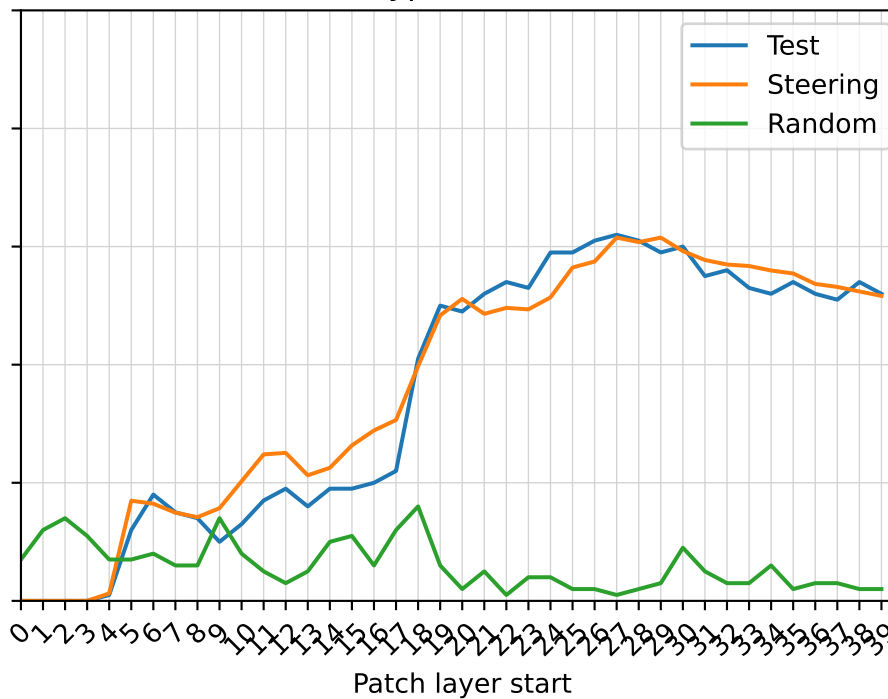s