|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 서비스 지원 방식 | 양자컴퓨터 형태 | 양자컴퓨터 구조 (큐비트 얽힘 형태 구조) | 최대 지원 큐비트 수 | 서비스 가격 | 지원 가능 언어 | 특징 (장점 / 단점) |
| Google TensorFlow Quantum / Cirq | Quantum Engine API[[1]](#footnote-0) | 초전도 방식[[2]](#footnote-1) | [[3]](#footnote-2) | Bristlecone 72큐빗[[4]](#footnote-3) | 제안서를 제출해야함.[[5]](#footnote-4) | Python[[6]](#footnote-5) | 72 큐빗  상세한 설명 |
| IBM Qiskit | 웹[[7]](#footnote-6) / API[[8]](#footnote-7) | 초전도 방식[[9]](#footnote-8) | [[10]](#footnote-9) | IBM 멜버른 머신-15큐빗 v2.3.3[[11]](#footnote-10) | 무료 | Python[[12]](#footnote-11) | 코딩 필수X  무료  15큐빗 |
| Xanadu Strawberry Fields / Pennylane | 자체 플랫폼, API[[13]](#footnote-12) | 광학식[[14]](#footnote-13) | - | X12  12 qubits[[15]](#footnote-14)[[16]](#footnote-15) | - | Python[[17]](#footnote-16) | 광학식  자사 머신러닝 lib 존재  적은 qubit 수 |
| Rigetti Forest | 자체 플랫폼, AWS[[18]](#footnote-17) | 초전도 방식[[19]](#footnote-18) | [[20]](#footnote-19) | Rigetti Aspen-8 - 31 qubits[[21]](#footnote-20) | $0.3 per task  $0.00035 per shot[[22]](#footnote-21) | Python | 저렴하다  큐비트 구조가 8각형이다  high fidelity |
| IonQ | AWS, Azure[[23]](#footnote-22) | 이온 트랩 방식[[24]](#footnote-23) | - | 32 quits[[25]](#footnote-24) | $0.3 per task  $0.01 per shot[[26]](#footnote-25) | JavaScript[[27]](#footnote-26) | 이온 트랩 방식  Python이 아님  laser control |

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