

Rider

2022063881 정민성

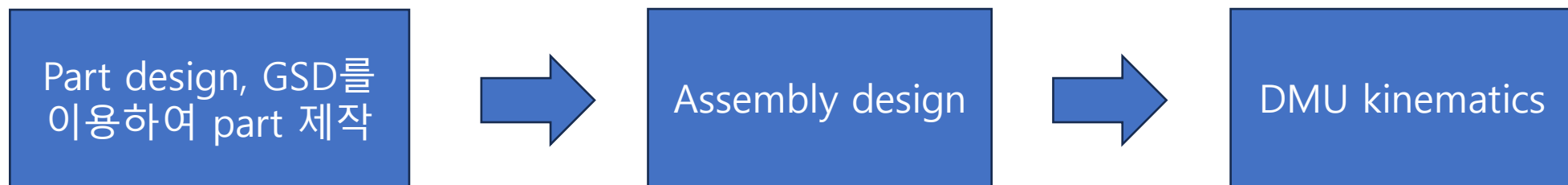
자전거 시뮬레이션



주제 선정



제작 과정



Product 구성요소

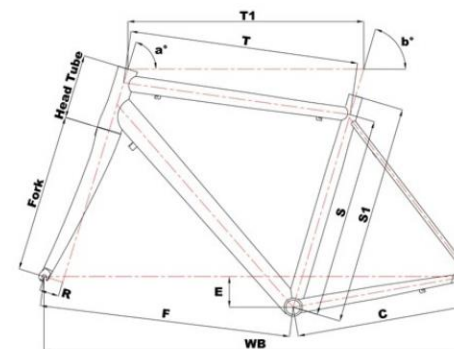
총 8개 part

- Frame
- Frontfork
- Tire
- Wheel
- Crank
- Smallcrank
- Axis1
- Axis2

Frame

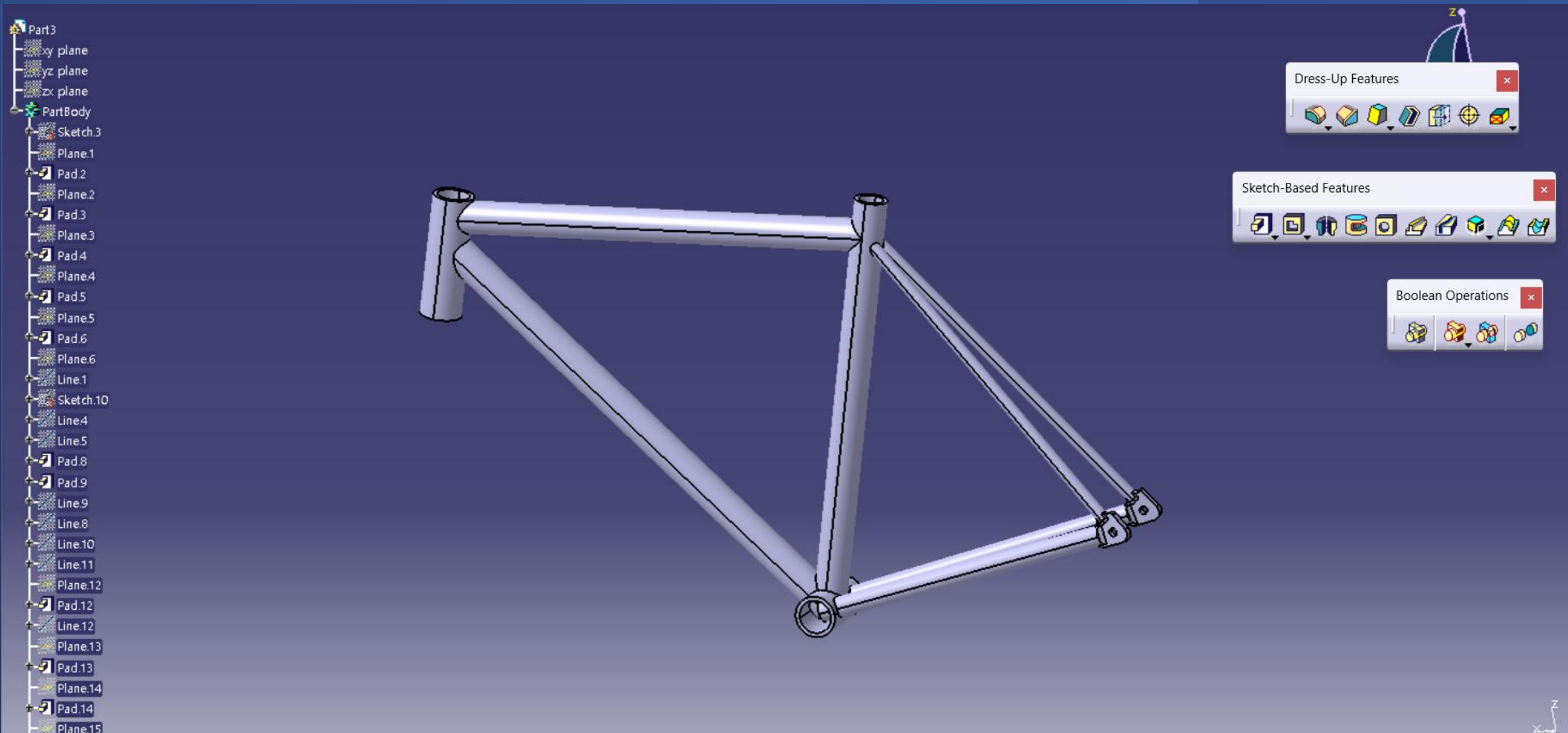


GEOMETRY



Misura Size	S1	S	T1	T	Head Tube	a°	b°	R	C	F	WB	E	Fork	St.Ov.
XS	460	415	510	494	123	71	74,5	45	407	572	968	73	368	726
S	480	435	527	510	125	72	74	45	407	573	969	73	368	735
M	510	465	545	530	150	73	73,5	45	407	581	977	71	368	765
L	540	495	560	544	173	73,5	73	45	407	585	981	71	368	792
XL	570	525	580	564	205	73,5	72,5	45	410	601	1001	68	368	823

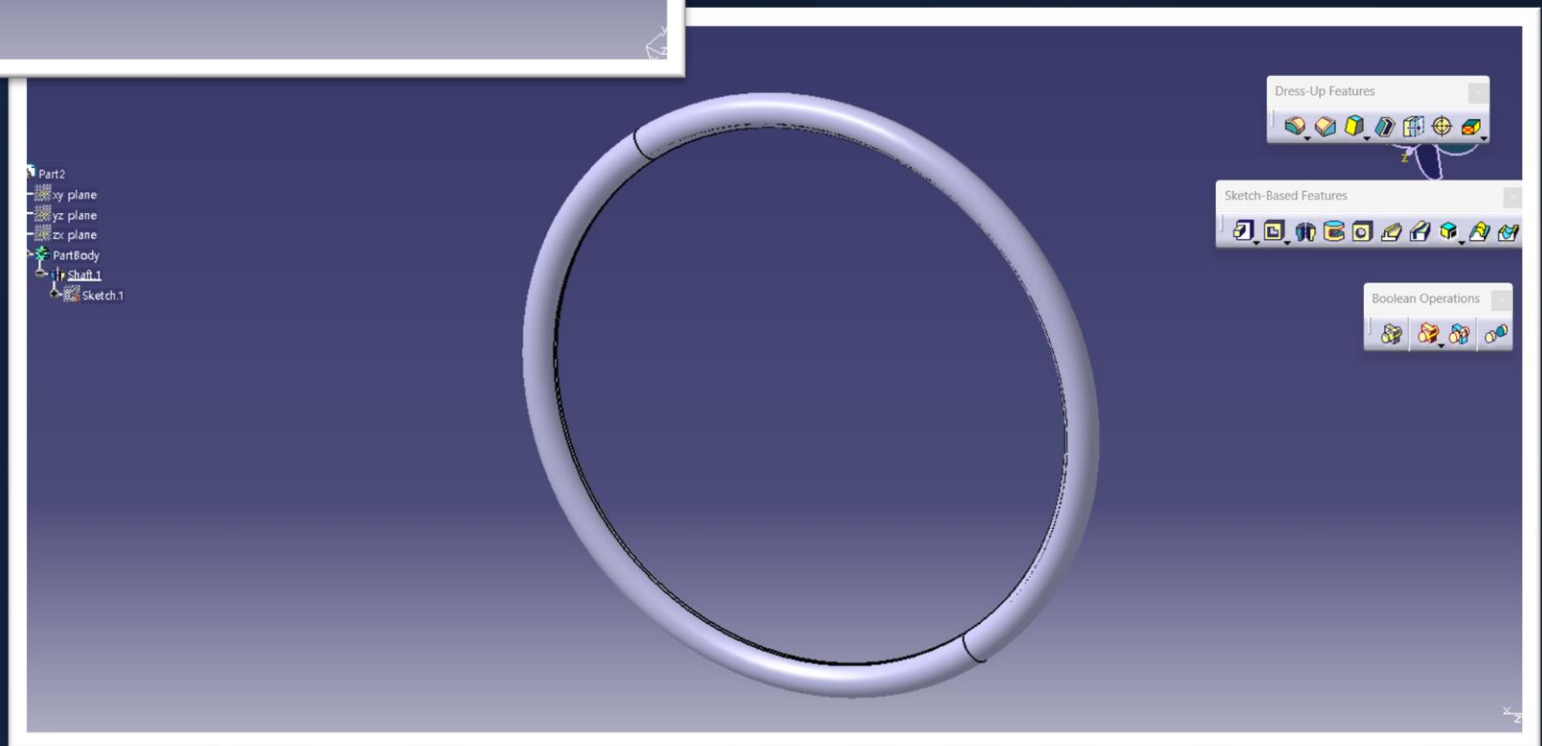
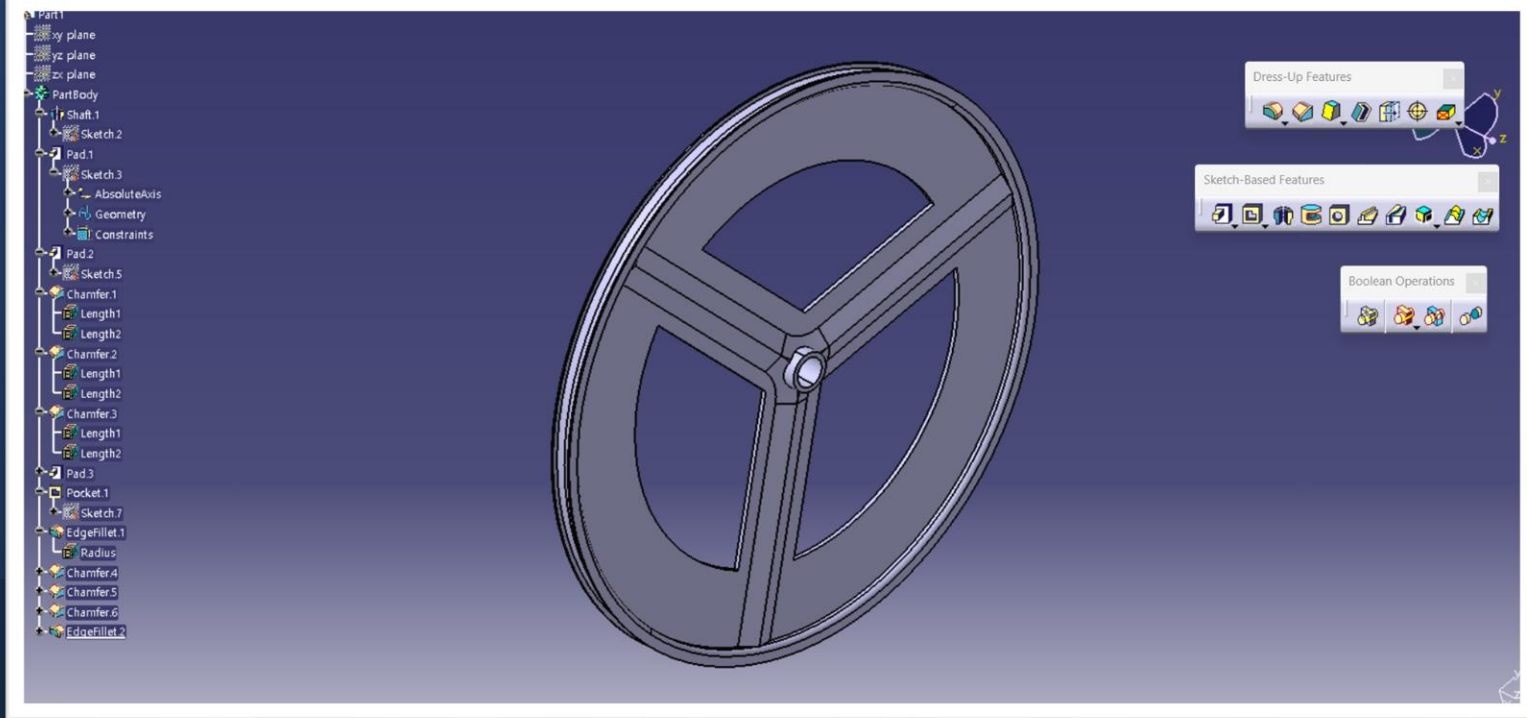
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Wheel & Tire



<http://item.gmarket.co.kr/Item?goodscode=2405541294&buyboxtype=ad>



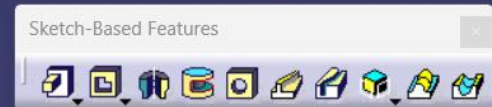
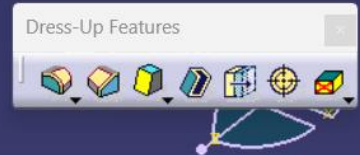
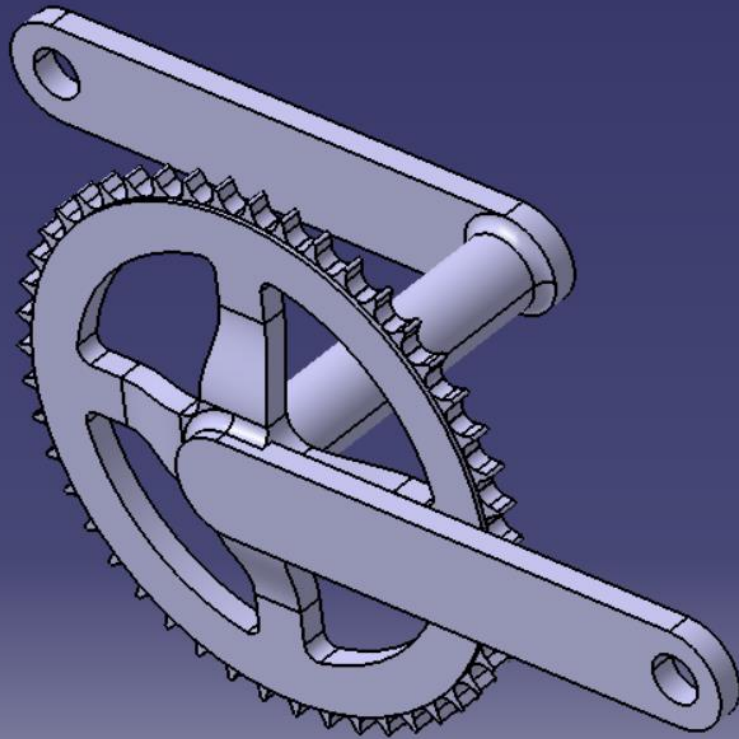
Crank



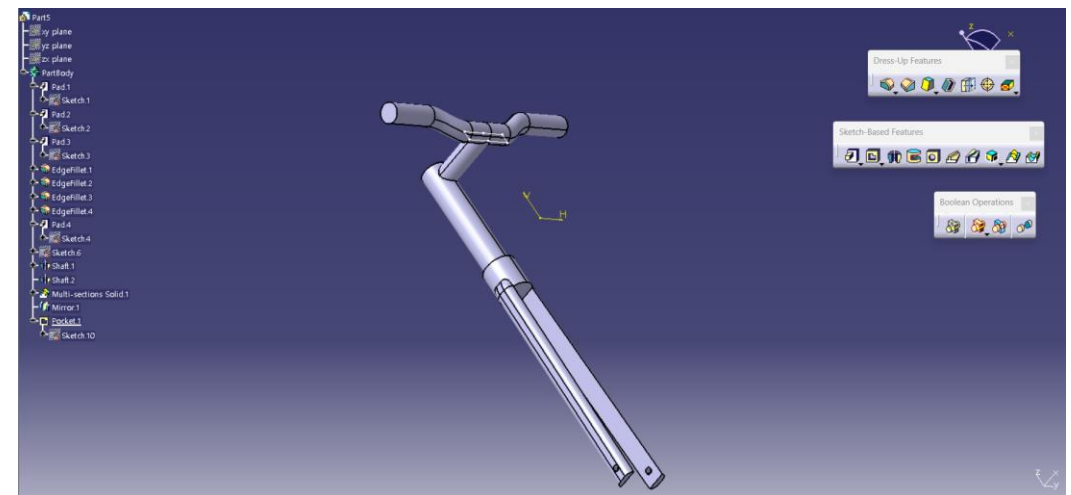
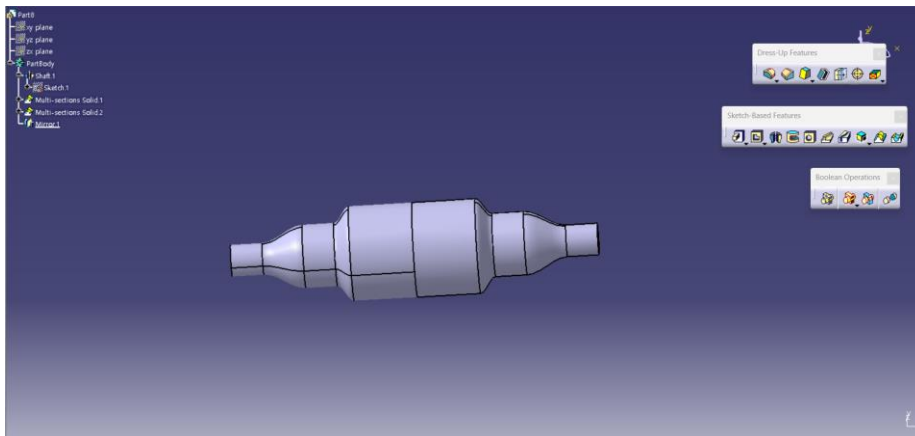
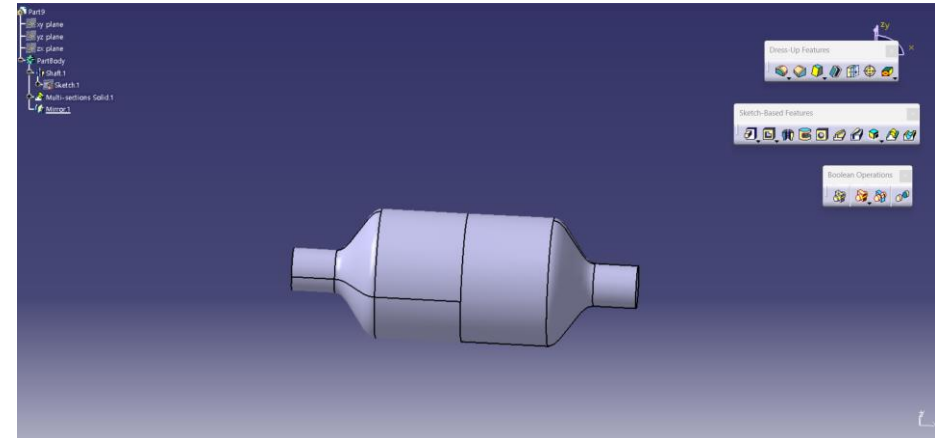
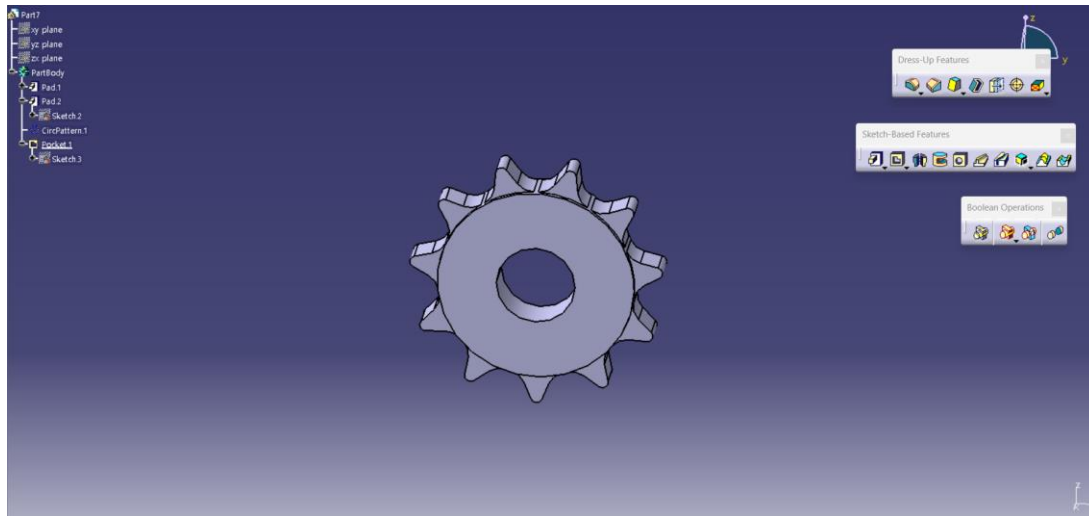
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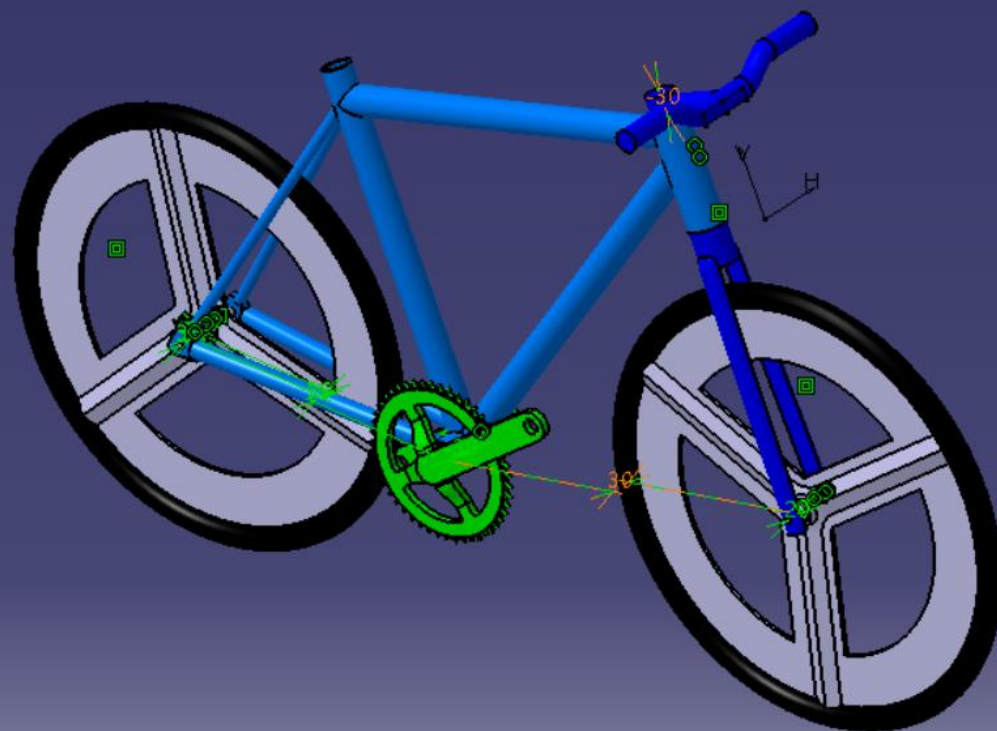
Part4

- xy plane
- yz plane
- zx plane
- PartBody
 - Pad.1
 - Sketch.1
 - AbsoluteAxis
 - Geometry
 - Constraints
 - Pad.2
 - Sketch.2
 - AbsoluteAxis
 - Geometry
 - Constraints
 - CircPattern.2
 - Pad.3
 - Multi-sections Solid.1
 - Boundary.1
 - Boundary.2
 - Multi-sections Solid.2
 - Multi-sections Solid.3
 - Multi-sections Solid.4
 - Pad.4
 - Sketch.5
 - EdgeFillet.1
 - Pad.5
 - Sketch.6
 - Pad.6
 - Sketch.7
 - EdgeFillet.2

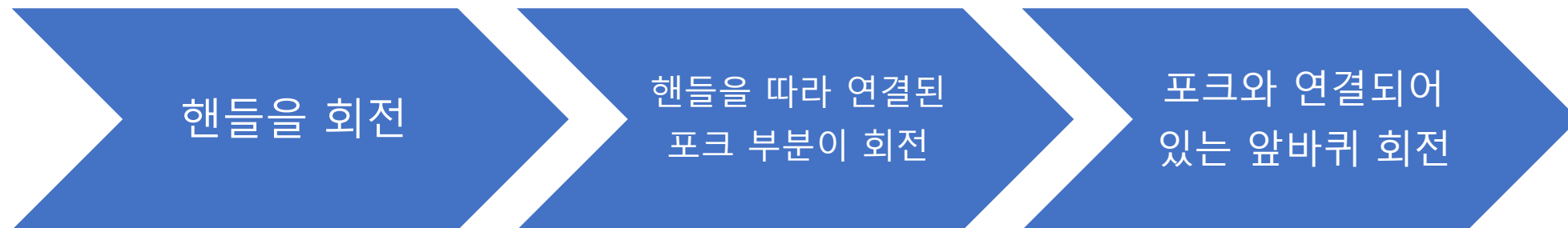


Smallcrank, axis1, axis2, frontfork

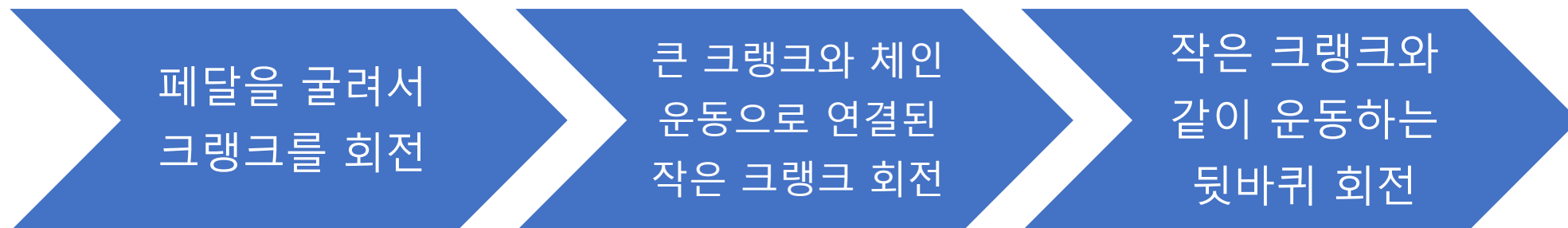




Mechanism1



Mechanism2



Simulation 영상

<https://youtu.be/qB1GXE08yyA>

어려웠던 점

- 인터넷에서 자전거 부품들의 상세한 크기를 찾기 어려웠다.
- 서로 다른 자전거들의 부품을 참고해서 assembly design을 진행할 때 크기나 형태 등이 일치하지 않는 점이 불편했다.
- 체인을 직접 걸어서 체인이 구동되는 것도 구현하고 싶었지만 방법을 찾지 못하였다.

감사합니다