



ROCKET CRAFTERS

STAR^{3D} Rocket Engine

Safe **T**hrottleable **A**ffordable **R**eliable **3D** Printed
Rocket Propulsion and Launch Services

Launcher: Intrepid-1



Intrepid

Capability (from KSC-CCAFS):

- 415kg to 750km, 39° Inclination
- 410kg to 750km, 45° Inclination
- 405kg to 750km, 51° Inclination
- 395kg to 750km, 57° Inclination
- 375kg to 750km, Sun-synch (98°)

Stages:

- 1: 4x 125kN RCI hybrid motors
- 2: 4x 17kN RCI hybrid motors

Airframe and Aeroshell:

- 23.5m Stack height
- 2.4m diameter
- 34,405 kg Gross Take-Off Weight (GTOW)
- 500kN Max thrust on lift-off

- Breakthrough hybrid rocket engine performance
- Unprecedented safety – Automated Flight Safety System - no on-board explosives
- Design for volume manufacturing and assembly – robotic production and plug & play sub-systems
- Reduced customer booking lead time < 6 months
- Designed for high launch cadence



STAR 3D

World's First Commercially viable Hybrid Rocket Engine

“RCI’s vision is to change the way we access space by making it a much safer and more reliable and affordable form of transportation; thereby, facilitating the expansion and growth of space commerce.”



Safe

- Manufactured with a 3D Printer
- 2 Valves – Few Moving Parts
- No Cryogenic Propellants
- Produces H₂O, CO₂, and CO

Throttleable

- Smooth Burning
- Throttleable
- Restartable
- Easy to manufacture and operate

Affordable

- Non-Explosive Fuel
- No Hypergolics
- Eco Friendly - Cleaner than a Prius
- VERY, VERY, simple

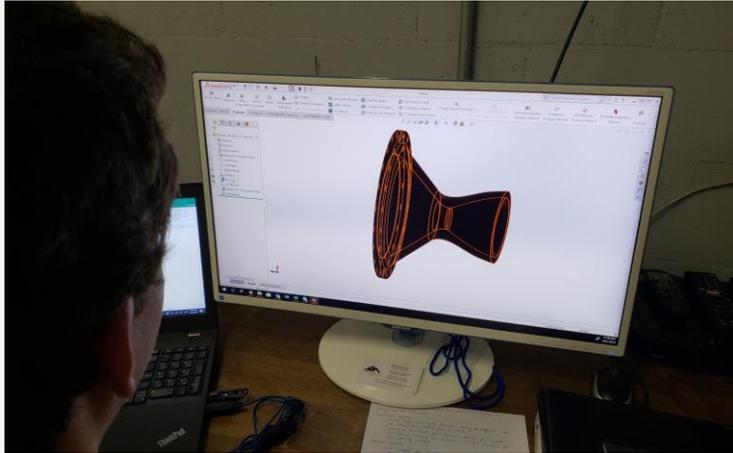
Reliable

Revolutionary: Process

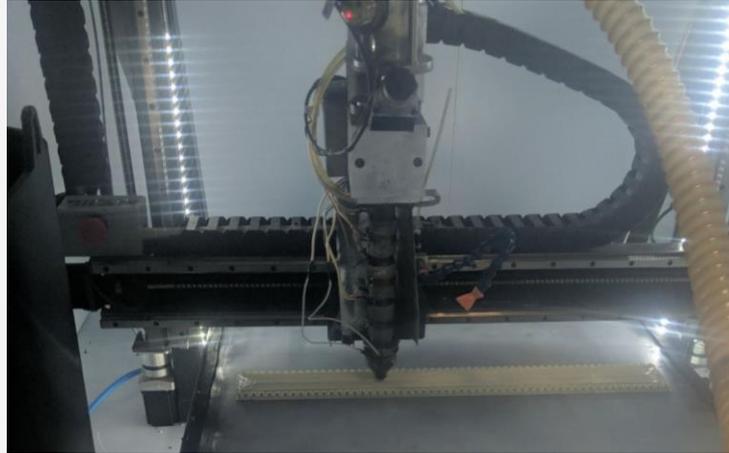
Modern Manufacturing and Minimal Touch Labor



Days



+ Hours



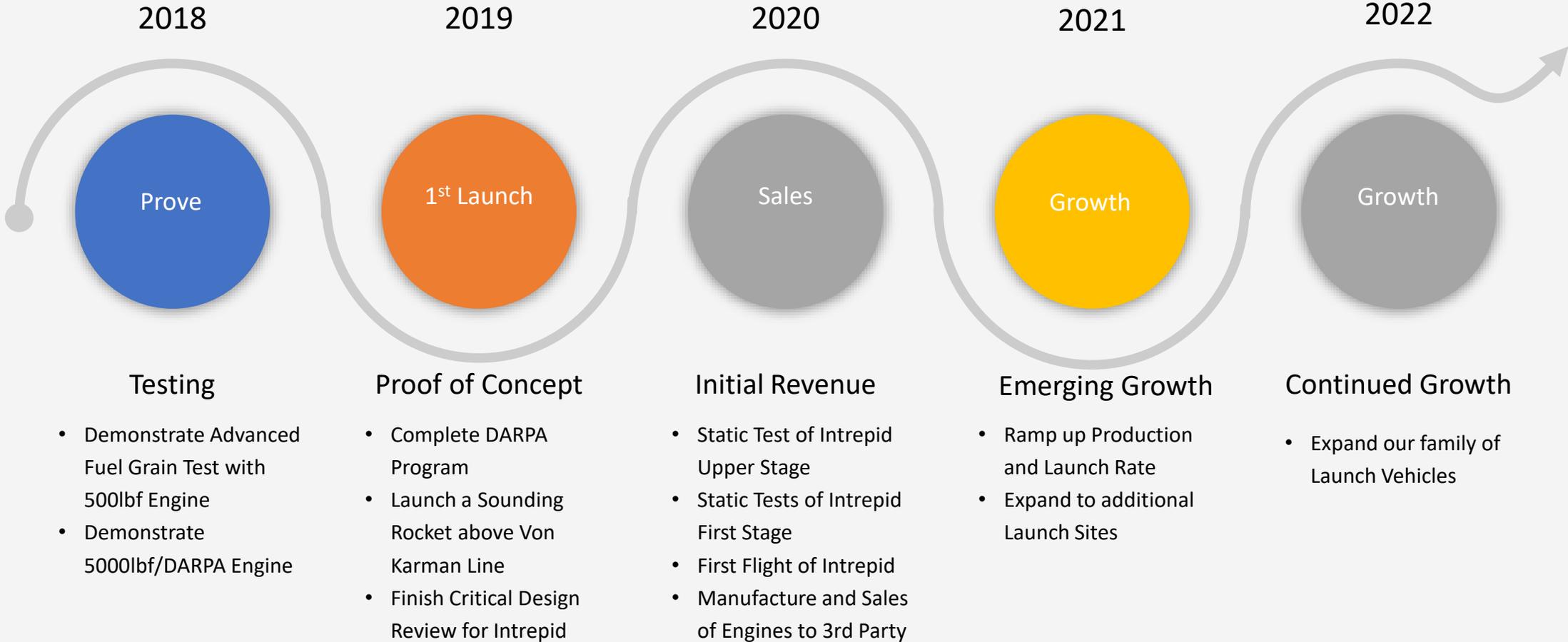
= Seconds



With minimal touch labor, constantly accelerating throughput for 3-D printers and zero cure time for our ABS based fuel, no company building solids or liquids can compete with the speed and agility with which Rocket Crafters can produce its revolutionary hybrid rocket engines.

Rocket: Milestones

Our Trajectory is clear





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