Amazon parts to buy:

Option 1 5mm rod long

<http://www.amazon.com/Polished-Finish-Precision-Annealed-Diameter/dp/B00CNM6RFA/ref=sr_1_4?ie=UTF8&qid=1456979572&sr=8-4&keywords=5mm+shaft>

5mm X 5mm coupler

<http://www.amazon.com/uxcell-Motor-Coupler-Flexible-Coupling/dp/B00DCAISM2/ref=sr_1_1?ie=UTF8&qid=1456982837&sr=8-1&keywords=5mm+shaft+coupler>

option 2

<http://www.amazon.com/Helicopter-100mm-Ground-Shaft-Round/dp/B00NQ9NBWQ/ref=sr_1_1?ie=UTF8&qid=1456979695&sr=8-1&keywords=5mm+shaft>

Machining:

1. Encoder plate (2x)
2. Bearing plate (1x)
3. Pulley ID enlarged to 6mm (2x)
4. Pulley enlarged to 8mm (maybe if we chose to do that)